College of Engineering

Undergraduate Sample Resumes

PAULA E. MERR (she/her)

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EDUCATION

Carnegie Mellon University | Pittsburgh, PA May 20XX
Bachelor of Science in Chemical Engineering, Additional Major in Biomedical Engineering
GPA: 3.20/4.00 | Engineering Dean's List 2 semesters

RELEVANT EXPERIENCE

Eli Lilly and Company | Cambridge, MA May – August 20XX
Academic Intern, Protein Purification

- Example: Action Verb + Context (tell the what and the how/why) + Result-if any (Metrics, Outcome, Impact)
- Investigated new purification scheme nominated as one of Eli Lilly's Top 100 Innovations of 2017; to be published with co-authorship
- Conducted IMAC, Prot A/G, SEC purifications, leading to findings for 3 new protein structures

Merck & Co. | West Point, PA May – August 20XX
Technical Operations Intern

- Performed process monitoring & statistical analysis on quality critical alarm in vaccine production bioreactors to resolve impact on batches, saving nearly $40,000 in losses

RESEARCH EXPERIENCE

Carnegie Mellon Cook Research Lab | Pittsburgh, PA August – May 20XX
Undergraduate Researcher

- Aided in fabrication of mini artificial lung devices for rabbits, as an early test model for human lung transplant, through creation of PDMS fiber pathways within device chamber to facilitate gas exchange & fluid flow
- Performed centrifugation/injection molding techniques to create silicone caps allowing for a gas flow entry point

Carnegie Mellon Biomolecular Chemical Engineering Labs | Pittsburgh, PA August – May 20XX
Undergraduate Researcher (unpaid) on Micelle Electrokinetic Chromatography with miRNA Sandwich Hybridization

- Improved readings of capillary electrophoresis through surfactant buffers formulation & DNA-tagging with micelle end labels. 20XX Undergraduate Research Grant

PROJECT EXPERIENCE

Bayer: Smart Pressure Jacket for CT Contrast Fluid Autoinjector, Team Lead August – May 20XX

- Biomedical design and development of injectable systems to improve consumer safety

3D-Chocolate Printing Jan – May 20XX

- Improved upon 3D Printing of chocolate based on rheological and thermodynamic properties

RELEVANT COURSEWORK

CHEMICAL REACTION ENGINEERING	TRANSPORT PROCESSES LAB	HEAT AND MASS TRANSFER
CHEMICAL ENG. PROCESS CONTROL	BIOMEDICAL ENG. DESIGN	CHEMICAL PROCESS DESIGN
OPTIMIZATION MODELS AND ALGORITHMS	BIOCHEMISTRY	CHEMICAL PROCESS SYSTEMS DESIGN
THERMODYNAMICS I & II	CHEMICAL PRODUCT DESIGN	SURGERY FOR ENGINEERS

LEADERSHIP, SKILLS & ACTIVITIES

LABORATORY: 3D printing, UV-Vis Spectrophotometry, protein purification, animal model testing
SOFTWARE/APPLICATIONS: MATLAB, Python, MS Office, Aspen, CAD (Solidworks & Fusion 360)
ACTIVITIES: Biomedical Engineering Society (Member), American Institute of Chemical Engineers (Member)
LEADERSHIP: Society of Women Engineers - Mentoring Chair, ABLE CMU – Events Chair

PAULA E. MERR

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EDUCATION

Carnegie Mellon University — Pittsburgh, PA
Bachelor of Science in Chemical Engineering — May 20XX
Additional Major in Biomedical Engineering
GPA: 3.15/4.00

San Francisco High School — San Francisco, CA
High School Diploma — June 20XX
GPA 3.82/4.00

PROJECT EXPERIENCE

Capsaicin Analysis Project, Chemistry Lab — Jan 20XX – April 20XX

- Example: Action Verb + Context (tell the what and the how/why) + Result-if any (Metrics, Outcome, Impact)
- Designed and performed an experiment to determine the quantity of capsaicin in peppers and salsas using reversed-phase HPLC.
- Presented findings to a class size of 50+ students to educate them on the critical components of the process.

Chemical Engineering Filtration System — Sept 20XX – Dec 20XX

- Partnered with a team of 4 students to design a filtration system to remove dye from water, increasing water safety.
- Identified new, cost-effective materials and reduced operating costs by 3%.

WORK EXPERIENCE

Carnegie Mellon University Career Center — Pittsburgh, PA
Career Peer Mentor — Jan 20XX – Present

- Conduct 1-on-1 resume reviews with first-year students to educate them on resume formatting and content creation.
- Create career-related handouts and research tools to facilitate internship searches.

YMCA Camp — San Jose, CA
Camp Counselor — May – Aug 20XX – 20XX

- Coordinated the daily activities of 22 children to encourage social learning.
- Collaborated with other camp counselors to plan weekly events.

LEADERSHIP EXPERIENCE & ACTIVITIES

Secretary, American Institute of Chemical Engineers (member since Aug 20XX) — 20XX – Present

- Organize meeting notes and manage membership information to support club goals.
- Engage 150 members to attend events with marketing and social media campaigns.

Society of Asian Scientists & Engineers — 20XX – Present

SKILLS & HONORS

Laboratory: HPLC, Organic Synthesis & Purification, Gas Absorber, Rheometer, IR Spectroscopy
Computer: Python, MATLAB, SIMULINK, AutoCAD, MS Office
Spoken Languages: Fluent in Spanish; Conversant in French
Honors: College of Engineering Dean's List (Spring 20XX), Andrew Carnegie Scholarship (Fall 20XX – Present), Valedictorian - San Francisco High School (June 20XX)

PAULA E. MERR

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EDUCATION

Carnegie Mellon University | Pittsburgh, PA — May 20XX
Bachelor of Science in Chemical Engineering
GPA: 3.20/4.00 | Dean's List Fall 20XX, Spring 20XX

WORK EXPERIENCE

Quality Intern, Laboratory Quality Assurance | Merck & Co. — May 20XX – Aug 20XX

- Example: Action Verb + Context (tell the what and the how/why) + Result-if any (Metrics, Outcome, Impact)
- Analyzed 7 months of capacity data for 26 LQA employees to quantify work in terms of units and hours
- Visualized capacity management data to allow Quality Leadership Team to connect work allocation to profit plan

Undergraduate Researcher | Summer Undergraduate Research Fellowship, CMU — May 20XX – Aug 20XX

- Measured biocompatibility of iron nanomaterials with various coating combinations in cancer cells
- Gained experience in cancer research, nanotechnology, biomaterials, and professional research practice

Career Peer Mentor | Career & Professional Development Center, CMU — Sept 20XX – Present

- Host weekly professional development workshops in first year residence halls, conduct resume reviews, provide information about useful resources, and perform administrative tasks

PROJECT EXPERIENCE

Chemical Process System Design — Sept 20XX – Dec 20XX

- Developed preliminary design of a chemical process in a team of 3 to convert ethane into fuel grade ethanol
- Conducted a literature review of ethylene hydration, considered alternative methods for the process, and analyzed economic feasibility
- Derived an annual production rate of XX% and purity of XX%

Osmotic Dehydration: Modeling Fick's Second Law with Pineapples — Jan 20XX – April 20XX

- Planned a mass transfer and osmotic dehydration experiment in a team of 4, measuring water loss & sugar gain, for various sucrose solution concentrations over different time periods using a mathematical model from literature

Analysis of Theobromine, Theophylline, and Caffeine Content — Jan 20XX – April 20XX

- Designed experiment in a team of 3 to determine percentage of methylxanthines in various chocolate samples
- Performed trials for reverse phase High Performance Liquid Chromatography and titrations to reduce variability

LEADERSHIP EXPERIENCE & ACTIVITIES

Society of Women Engineers | STEM Career Fair Co-Director — Jan 20XX - Present

- Recruited, interviewed, and selected 8 undergraduates for one of 3 STEM planning committees
- Delegated appropriate responsibilities to each committee, led progress meetings, and executed logistical tasks to plan a three-day career fair for 284 companies

National Society of Black Engineers | Member — Aug 20XX – Present
CMU PRISM | Member — Jan 20XX – Present

SKILLS & HONORS

LABORATORY: Unit Operations, Transport Processes, Analytical Chemistry Techniques
INSTRUMENTS: Ultraviolet-visible Spectrophotometer, High Performance Liquid Chromatography
SOFTWARE/APPLICATIONS: MatLab, Aspen, Python, MS Office, Adobe Suite, SolidWorks, AutoCAD
HONORS: Tau Beta Pi - Engineering Honor Society, Andrew Carnegie Scholarship

BRIDGET SPECTOR

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EDUCATION

Carnegie Mellon University Pittsburgh, PA
Bachelor of Science in Civil Engineering May 20XX
GPA: 3.15/4.00

Pittsburgh High School Pittsburgh, PA
High School Diploma June 20XX
GPA 3.5/4.00

PROJECT EXPERIENCE

Cardboard Structure, Intro to Structural Engineering Jan – May 20XX

- Example: Action Verb + Context (tell the what and the how/why) + Result-if any (Metrics, Outcome, Impact)
- Designed and constructed a cardboard bridge, using AutoCAD, meant to support the average adult male.
- Prepared scale models for analysis of alternatives prior to final test, and presented top 3 options to a class of 50+ students.

Traffic Light Timing Aug – Dec 20XX

- Conducted traffic-flow studies through three intersections on Forbes Avenue through weekly observation and recordings.
- Collected and analyzed 3 months' worth of data, and designed alternative traffic light cycles with increased efficiency.

WORK EXPERIENCE

Desk Attendant, Carnegie Mellon Fitness Center Jan 20XX – Present

- Managed daily administrative operations for the CMU Fitness Center to enable an organized environment for guests.
- Developed a new process to track frequency of equipment cleanings, ensuring that all equipment met pre-established cleanliness standards.

Camp Counselor, Happy Valley Camp, Pittsburgh, PA May – Aug 20XX – 20XX

- Coordinated the daily activities of 22 children to encourage social learning.
- Collaborated with other camp counselors to plan weekly events.

LEADERSHIP EXPERIENCE

Secretary, American Society of Civil Engineers (ASCE) 20XX – Present

- Document monthly meeting notes and communicate relevant updates to 30+ members, ensuring that all members are informed and clear on group priorities.

SKILLS

Computer: Microsoft Office, AutoCAD, MathCAD, MS Project
Spoken Languages: Fluent in Spanish; Conversant in French

ACTIVITIES

Society of Women Engineers 20XX – Present
American Society of Civil Engineers 20XX – Present

HONORS

College of Engineering Dean's List (GPA 3.75 and above) Jan 20XX
National Honor Society, Pittsburgh High School June 20XX

BRIDGET SPECTOR

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EDUCATION

Carnegie Mellon University | Pittsburgh, PA — May 20XX
Bachelor of Science in Civil Engineering
GPA: 3.30/4.00 | Engineering Dean's List 2 semesters

RELEVANT EXPERIENCE

Civil Engineering Intern — May – August 20XX
Duquesne Light Company | Pittsburgh, PA

- Example: Action Verb + Context (tell the what and the how/why) + Result-if any (Metrics, Outcome, Impact)
- Created reference databases in GIS for engineering clearance letters and soil boring drawings to be used before construction of new structures; presented how to access and use databases to management
- Designed replacement concrete cantilevered retaining wall for transmission tower foundation
- Collaborated with technicians to revise and update drawings in database
- Aided in design of structures and poles for emergency transmission line failure using NESC clearances

Teaching Assistant | Civil & Environmental Engineering Department — Jan – May 20XX

- Teaching Assistant (TA) for Soil Mechanics course comprised of 29 undergraduate students
- Created homework solution sets, managed a team of 3 graders, held office hours 2x/week
- Aided in drafting, reviewing, and proctoring exams, as well as all other course materials

PROJECT EXPERIENCE

Steel Bridge Senior Design — Aug – Dec 20XX

- Worked in group of 10 to design a 20-ft steel bridge to a 2,500-pound static load
- Performed extensive load and deflection calculations for all structural members
- Executed partial life-cycle analysis on carbon equivalence of raw materials

CMU ANSYS Building – Estimating and Scheduling Project — Aug – Dec 20XX

- Prepared bid estimate as concrete subcontractor, by extracting quantities from 2D drawings as well as cost data from RS Means database, for submission to general contractor
- Performed project manager duties such as developing a detailed schedule of concrete work for ANSYS building

LEADERSHIP & ACTIVITIES EXPERIENCE

Manager | Carnegie Mellon Booth Competition — Jan – May 20XX

- Led a team of 60 students over a three-month period in creating, designing, and building a 20' x 15' x 18' booth
- Organized with five project leaders to develop interactive and educational components for the booth's interior coinciding with event-wide theme

CMU Resident Assistant | Office of Residential Education — Aug – May 20XX

- Coordinated with a team of six staff members to create an engaging community through house events
- Provided support, instruction on programs and resources, and emergency response for 40 first year residents

Member | American Society of Civil Engineers — Aug 20XX – Present
Member | Society for Hispanic Professional Engineers — Jan 20XX – Present

SKILLS & HONORS

FIELD: Project management, bridge design, bid estimating, soil mechanics, geotechnical engineering
SOFTWARE: Python3, MATLAB, AutoCAD, BlueBeam Revu, SolidWorks
LANGUAGES: English (fluent), Spanish (fluent), Portuguese (conversational)
HONORS: Andrew Carnegie Scholarship

DAT A. STRUCTURES

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U.S. Citizen

EDUCATION

Carnegie Mellon University, Pittsburgh, PA
Bachelor of Science in Electrical and Computer Engineering — May 20XX
Overall GPA: 3.37/4.00

Nashua High School Nashua, NH
High School Diploma — June 20XX

RELEVANT COURSES

* Spring 20XX
Electrical and Computer Engineering*,Differential Equations,
Calculus in Three Dimensions, Introduction to Data Structures*

SKILLS

Programming Languages: Python, JavaScript, C, HTML, SQL
Operating Systems: Windows, MacOS X, UNIX
Software: Matlab, Mathematica
Spoken Languages: Spanish

PROJECT EXPERIENCE

Robot, Robotics Institute — January-April 20XX

- Example: Action Verb + Context (tell the what and the how/why) + Result-if any (Metrics, Outcome, Impact)
- Constructed smaller circuits using a protoboard to power a beeper, LED, clock, memory chip, and two motors
- Combined circuits to create a mini programmable robot
- Programmed the robot to successfully complete a test course

15-112 Term Project — October-December 20XX
Strategy game implemented in Python based on Sid Meier's Civilization

- Functional opponent AI, resource gathering, civilization building, combat

WORK EXPERIENCE

O'Connor Irrigation Nashua, NH
Irrigation System Installation Workman — May-August 20XX

- Assisted Senior Associate with plumbing, head installation, Ditch Witch, trench digging, wiring, and programming
- Developed schematics using proper measurements and gauges
- Applied and spread appropriate amounts of loam and grass seed post-installation

ACTIVITIES

Varsity Soccer, Carnegie Mellon University — August 20XX-present
Intramural Softball, Carnegie Mellon University — April-May 20XX
National Honor Society Secretary, Nashua High School — 20XX-20XX
Varsity Club President, Nashua High School — 20XX
Varsity Soccer Captain, Nashua High School — 20XX

HONORS

Dean's List, College of Engineering — Fall 20XX
U.S. Marines Scholarship — 20XX
Who's Who Among American High School Students — 20XX, 20XX, 20XX

SOFIE WARE (SHE, HER)

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U.S. Citizen

EDUCATION

Carnegie Mellon University, Pittsburgh, PA
Bachelor of Science in Electrical and Computer Engineering — May 20XX
Minor: Chinese Studies
Overall GPA: 3.4/4.00

COMPUTER SKILLS

Programming Languages: C/C++, Javascript, Python, System Verilog, Verilog, MATLAB, ARM, SQL, GO
Software: Git, SolidWorks, AutoCAD, Cadence
Operating Systems: Apple Macintosh OSX, Windows, Linux Ubuntu
Spoken Languages: Mandarin (Chinese), English

WORK EXPERIENCE

Carnegie Mellon University Cylab, Pittsburgh, PA
Summer Research Software Intern — May-August 20XX

- Example: Action Verb + Context (tell the what and the how/why) + Result-if any (Metrics, Outcome, Impact)
- Accomplished autonomous flight using GPS Waypoints for A.R. Drone 2.0
- Assisted in human detection algorithms using thermal camera
- Contributed to long-range radio drone-to-drone communications

M.C. DEAN Dulles, VA
Design Engineer Intern — June-August 20XX

- Designed lighting circuits in 2 current projects using AutoDesk AutoCAD and Revit
- Performed lighting calculations and analysis using AGi32
- Conducted over 20 pages of takeoffs for cost analysis
- Corrected over 30 pages of lighting diagrams and circuiting

CARNEGIE MELLON UNIVERSITY Pittsburgh, PA
Computing Skills Course Instructor, Computer Education — August 20XX-May 20XX

- Instructed required computer skills course for incoming freshmen
- Worked with and evaluated students to promote maximum computing utilization

PROJECT EXPERIENCE

Road Sign Recognition, Digital Communication & Signal Processing System Design — February-April 20XX

- Designed and implemented a road sign recognition algorithm on a TI C67 DSP
- Presented project at the Carnegie Mellon Undergraduate Research Symposium

Analog Circuit Design and Analysis, Electronic Devices and Analog Circuits — Fall 20XX

- Participated in a series of hands-on labs to build and operate analog circuits
- Gained experience in circuit and component modeling, amplifiers, filters and signal detection and processing

LEADERSHIP EXPERIENCE

OM – Spiritual Organization, President — Apr. 20XX-present, Secretary: Jan. 20XX-Mar. 20XX
Office of the Dean of Student Affairs

- Planning Committee, Take Our Children to Work Day — August 20XX-present
- Volunteer, Niteline Information Resource/ Crisis Control Phone Line — August 20XX-present
- Planning Committee, Mosaic Annual Conference on Women's Issues — 20XX-20XX

Society of Women Engineers, Annual Winter Semiformal Chair — April 20XX-March 20XX

HONORS

Dean's List, College of Engineering — Fall 20XX
Sony Scholarship — 20XX

Environ Mentyl

555-555-5555 | environ@cmu.edu | www.linkedin.com/environmentyl

Education

Carnegie Mellon University Pittsburgh, PA May 20XX
Bachelor of Science in Environmental Engineering
Additional Major in Engineering & Public Policy; Minor in Environmental and Sustainability Studies
GPA: 3.4/4.0 | Engineering Dean's List, 2 semesters

Relevant Experience

Argonne National Laboratory May – Aug 20XX
DOE – SULI Intern | Water Reuse in a Circular Economy | Chicago, IL

- Example: Action Verb + Context (tell the what and the how/why) + Result-if any (Metrics, Outcome, Impact)
- Supported the WATER project by analyzing two state water reuse potentials for bioenergy production
- Produced maps of reclaimed water available for irrigation of bioenergy feedstocks
- Presented a research report and poster to Argonne professionals and peers

Carnegie Mellon University May 20XX – Oct 20XX
Research Assistant | Context-Aware Task Assistance for Nuclear Field Workers | Pittsburgh, PA

- Collaborated with researchers from three universities to support a DOE project
- Conducted research on how to prevent human errors in nuclear power plants
- Designed and presented a research paper and poster at an international conference
    - Last Name, S., Name, J., Name, A., Name, G., Name, P. (20XX). Using Computer Vision to Reduce Human Errors of Operating on the Wrong Control Valves in Nuclear Power Plants. In: Ron Boring and Robert McDonald (eds) Human Factors in Energy: Oil, Gas, Nuclear and Electric Power. AHFE (20XX) International Conference. AHFE Open Access, vol 54. AHFE USA.

Scott Institute for Energy Innovation Nov. 20XX – May 20XX
Student Intern | Pittsburgh, PA

- Modeled communications and content management systems to increase engagement with the Institute; Projects: Cleantech Startup article, Energy Week webpage design
- Conducted research on the American Made Solar Prize to improve the Institute's role in their partnership
- Assisted in planning events to facilitate the Institute's support of cleantech startups

Leadership & Activities Experience

Society of Women Engineers | Member 20XX – Present
Supplemental Instruction Leader | Virtual Peer Advisor Jan – May 20XX
Museum of Science and Industry | Teen Advisory Committee Member | Chicago, IL May – Aug 20XX

- Analyzed exhibits to improve the Museum's engagement with youth audiences
- Developed and presented an exhibition to senior Museum officials to improve marketing strategies

Skills

Software: Java | Python | Excel | MATLAB | Simulink | Tableau
Language: English (Native), French (Fluent)

COMP O. SITE

(THEY, THEM, THEIRS)
mse@andrew.cmu.edu 412.889.4600 (Cell)
U.S. Citizen

EDUCATION

Carnegie Mellon University, Pittsburgh, PA
Bachelor of Science in Materials Science and Engineering — May 20XX
Overall GPA: 3.31/4.00

Austin High School, Austin, PA — June 20XX
Diploma
GPA: 3.95/4.00

RELEVANT COURSES

Intro to Materials Science and Engineering
Calculus in 3D
Physics I, II for Engineers
Transport of Materials
Advanced Programming in Java
Structures of Materials

SKILLS

Applications: MATLAB, Minitab, Labview, MathCAD, Java, Python, MS Office
Instruments: Furnace, Optical Microscope
Spoken Languages: Conversant in Spanish

WORK EXPERIENCE

Carnegie Mellon University, Pittsburgh, PA
Research Assistant, Materials Science and Engineering — August 20XX-present

- Example: Action Verb + Context (tell the what and the how/why) + Result-if any (Metrics, Outcome, Impact)
- Evaluate the surface properties of various AL finishes
- Perform ongoing mechanical testing and analysis

Ajax Plumbing, Austin, PA
Irrigation System Installation Workman — June-August 20XX

- Assisted Senior Associate with plumbing, head installation, Ditch Witch, trench digging, wiring, and programming
- Developed schematics using proper measurements and gauges
- Applied and spread appropriate amounts of loam and grass seed post-installation

PROJECT EXPERIENCE

Synthesis of Titanomagnetite, Phase Diagrams and Relations — September-December 20XX

- Used and created precursors, such as ulvospinel, to synthesize a titanomagnetite and analyze the properties of two different compositions to simulate the behavior of materials on Mars

ACTIVITIES

Student-Athlete, Varsity Soccer, Carnegie Mellon University — 20XX-present
Intramural Softball, Carnegie Mellon University — 20XX-present
Society of Hispanic Professional Engineers, Carnegie Mellon University — 20XX-20XX
Varsity Soccer, Captain (20XX), Austin High School — 20XX-20XX

HONORS

Dean's List, College of Engineering — Spring 20XX
Austin High School Mathematics Award — 20XX
Massachusetts Institute of Technology Book Award — 20XX
U.S. Marines Scholarship — 20XX

Comp O. Site (She, Her, Hers)

mse@andrew.cmu.edu (412) 222-1212 (Cell)

U.S. Citizen

EDUCATION

Carnegie Mellon University, Pittsburgh, PA

B.S. in Materials Science and Engineering — May 20XX

Minors in Manufacturing Engineering and Photography & Digital Imaging

GPA 3.42/4.0

WORK EXPERIENCE

Power Superconductor Applications Corp., New Castle, PA — May-August 20XX

Laboratory Specialist Grade IV

- Example: Action Verb + Context (tell the what and the how/why) + Result-if any (Metrics, Outcome, Impact)
- Utilized engineering software such as LabView, MathCAD, and AutoCAD
- Constructed testing apparatus and tested Linear Induction Motors and Transverse Flux Machines
- Led research initiative on the use of Cryogenic Aluminum hyperconductor in company products
- Contributed to published paper: Kuznet, Levy, Wilson. “Development of High-Field Transverse Flux Induction Drive for Ordnance Handling on Navy Ships and Industrial Conveyors” 4th Int. Sym. Linear Drives for Industry Apps.
- Participated in writing government proposals and travel to Wright Patterson Air Force Base, NIST, NRL, and ONR to meet with partners and clients

Carnegie Mellon University, Undergraduate Research

Research Assistant, The Effect of Surface Texture on Formability in Aluminum Sheets — January-May 20XX

- Designed templates for a photolithography process to texture aluminum sheets
- Performing ongoing mechanical testing and analysis

Research Assistant, Grain Boundary Movement in Thin Films of Aluminum — January-May 20XX

- Produced images from TEM negatives in a black and white darkroom
- Traced grain boundaries by hand to track movement and wrote original paper on hand tracing techniques

National High Magnetic Field Laboratory, Tallahassee, FL — May-August 20XX

Research Intern, Topic: Superconducting Material Magnesium Diboride

- Improved production for pure MgB_2 by refining heat treatments
- Operated SQUID magnetometer and ran X-Ray Diffraction tests
- Interpreted results, wrote an original paper, and presented research to scientists, staff, and peers

PROJECT EXPERIENCE

Materials Science Capstone Course, Senior Group Project — August-December 20XX

Deformation of Amorphous Metallic Ribbon for use in Magnetic Core Applications

- Performed magnetic, compositional, and structural analysis on cores donated from Spang Magnetics
- Designed a billet and performed hot extrusion of a wound core at WPAFB to reduce the ribbon thickness
- Cast an amorphous rod and amorphous metallic ribbon for comparative analysis

SKILLS

Applications: MATLAB, Adobe Photoshop, Minitab, LabVIEW, MathCAD, Java, MS Office

Instruments: Scanning Electron Microscope (SEM), X-Ray Diffraction (XRD), SQUID Magnetometer, Differential Scanning Calorimetry (DSC), Differential Thermal Analysis (DTA), UV-Vis spectrophotometer, Vickers Hardness Testing, Charpy Testing, Polishing, Melt Spinning, Soldering

LEADERSHIP EXPERIENCE & HONORS

Resident Advisor, CMU Apartments — 20XX-20XX

National Society of Collegiate Scholars — 20XX-20XX

Student Action Committee, MSE — 20XX-20XX

National Society of Black Engineers (NSBE) — 20XX-20XX

Manee Facture

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EDUCATION

Carnegie Mellon University | Pittsburgh, PA
Bachelor of Science in Mechanical Engineering | May 20XX
Additional Major in Engineering & Public Policy
Overall GPA: 3.0/4.0

New York High School | New York, NY
High School Diploma | GPA 3.82/4.0 | June 20XX

PROJECT EXPERIENCE

Name of Project from Mechanics 2D | September-December 20XX

- Example: Action Verb + Context (tell the what and the how/why) + Result-if any (Metrics, Outcome, Impact)

Truss Project | September-December 20XX

- Designed an acrylic truss in Solidworks that would fail at a specific load and used laser cutter to construct
- Compared analytical computations with two iterations of test results [Team of 3]

Mobot Project | September-December 20XX

- Programmed a mini-robot to follow a line, complete a course, and stop a fixed distance before an obstacle
- Coded actuators and ultrasonic sensors with an Arduino [Team of 3]

Mini-Buggy | September-December 20XX

- Prototyped airfoil using Solidworks, evaluating effects of shape on drag coefficients in software
- Fabricated prototype using 3D printing and analyzed wind tunnel test data

WORK EXPERIENCE

Library, Carnegie Mellon University | Student Receptionist | August 20XX-present

- Answer telephone and route calls as appropriate; complete projects for staff, such as organizing data in Excel

Happy Summer Camp | Camp Counselor | Springfield, NJ | May-August 20XX

- Created and coordinated activities for ten campers 10-12 years old
- Negotiated disputes between campers and helped to set-up for family weekend

LEADERSHIP EXPERIENCE

Vice-President, Society of Hispanic & Professional Engineers (SHPE) | January 20XX-present

- Organize monthly speaker series, which has seven corporate and alumni presenters

Treasurer, Yearbook Club, New York High School | 20XX-20XX

- Managed the finances for the organization with a budget of $5,000

SKILLS

Software: MATLAB, Solidworks, Python, Arduino
Machines: Mill, Lathe, Drill Press, Band Saw, CNC Mill, Laser Cutter, 3D Printer
Languages: Fluent in Spanish; Conversant in French

ACTIVITIES & HONORS

Student-Athlete, Men's Varsity Track and Field Team at Carnegie Mellon University | August 20XX-present
Alpha Phi Omega Service Fraternity | August 20XX-present
Intramural Sports: Softball, Volleyball | August 20XX-present
Orchestra, New York High School | 20XX-20XX
National Honor Society | 20XX

MANUU FACTURE

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Portfolio: manuufacture.com

EDUCATION

Carnegie Mellon University, Pittsburgh, PA
Master of Science in Mechanical Engineering, May 20XX *[Add this line only if you are doing the IMB]*
Bachelor of Science in Mechanical Engineering, May 20XX
Additional Major in Biomedical Engineering
Overall GPA: 3.0/4.0

RELEVANT EXPERIENCE

Procter & Gamble Manufacturing Company, Engineering Intern, Lima, OH**,** May-August 20XX

- Example: Action Verb + Context (tell the what and the how/why) + Result-if any (Metrics, Outcome, Impact)
- Conducted 10 line trials to determine plant capability and made recommendations for noise mitigation
- Implemented a daily management system for managing scrap in order to reduce weekly accumulation

PROJECT EXPERIENCE

Head Mechanic and Buggy Chairperson, ABC Organization, August 20XX-present

- Customized and built a gravity racer, out of composite materials, for annual University racing competition
- Managed team of 6 mechanics and decreased race time by more than 5 seconds with design of new steering

Suitcase with Vacuum Pump, Engineering Design II, January-May 20XX

- Developed and built a suitcase with a vacuum pump that removed excess air to increase packing capacity by up to 50%, allowing travelers more personal items per trip (Team of 3)

Swinging Gripper, Design I, August-December 20XX

- Created a robotic gripper to use a small motor torque to hold onto billiards ball through one full swinging motion (Led team of 5)
- Constructed a 3D representation of gripper in SolidWorks and ran successful stress simulation on model

Astronaut's Coat Rack, Design I, August-December 20XX

- Designed a coat rack with mass and support constraints to sustain a load in space
- Created a design to carry 3 times required load with an acrylic structure, weighing less than 10 grams

RELEVANT COURSES

Microelectromechanical Systems	Mechanical Systems Experimentation	Cardiovascular Mechanics
Fuel Cell Systems	Soft Robots: Mechanics, Design & Modeling	Air Quality Engineering

LEADERSHIP EXPERIENCE

Vice-President, NSBE (National Society of Black Engineers), January 20XX-present (Member since September 20XX)

- Organize monthly executive board meetings and coordinate Membership Sub-Committee

ADDITIONAL EXPERIENCE

Carnegie Mellon University, Desk Attendant, Pittsburgh, PA, August 20XX-May 20XX

- Checked students' identification and talked with students to ensure the safety of 75 residence hall students

SKILLS

Software: Python, MATLAB, Solidworks, Arduino
Machines: Mill, Lathe, Drill Press, Band Saw, CNC Mill, 3D Printer, Laser Cutter

ACTIVITIES & HONORS

ABC Organization, August 20XX-present
Student-Athlete, Women's Track and Field Team, Carnegie Mellon, August 20XX-present
American Society of Mechanical Engineers (ASME), August 20XX-present
College of Engineering Dean's List (GPA 3.75 and above), x semesters

[Note: Only use this resume for recruiters at small design firms. ATS software does not like 2 columns!]

MECKIE D. ZINE

Email: meckiedzine@andrew.cmu.edu
Portfolio: meckiedzine.com
Cell: 123.555.4567

EDUCATION

Carnegie Mellon University | Pittsburgh, PA
Bachelor of Science in Mechanical Engineering | May 20XX
Additional Major in Robotics
GPA: 3.0/4.0

RELEVANT EXPERIENCE

Procter & Gamble Manufacturing Company
Engineering Intern | Lima, OH | May-Aug 20XX

- Example: Action Verb + Context (tell the what and the how) + Result if any (Metrics, Outcome, and/or Impact)
- Conducted line trials to determine plant capability and made recommendations for noise mitigation
- Implemented a daily management system for managing scrap in order to reduce weekly accumulation

PROJECT EXPERIENCE

Robotic Arm (Independent Project) | Aug 20XX-present

- Created and manufactured device in order to help children safely reach for and carry objects

Suitcase with Vacuum Pump, Design II | Aug-Dec 20XX

- Developed and built a suitcase with a vacuum pump that removed excess air to increase packing capacity by up to 50%
- Innovative design allowed travelers to bring more personal items

Swinging Gripper, Design I | Aug-Dec 20XX

- Led a team of five people to create a robotic gripper that used a small
- motor torque to hold onto a billiards ball through one full swinging motion
- Constructed a 3D representation of the gripper in SolidWorks and ran stress simulation on the model

Astronaut's Coat Rack, Design I | Jan-May 20XX

- Designed a coat rack with mass and support constraints to sustain a load in space
- Created a design that could carry three times the required load with an acrylic structure that weighs less than 10 grams

Head Mechanic and Buggy Chairperson, ABC Organization | 20XX-present

- Customized and built a gravity racer, out of composite materials, for annual University racing competition
- Decreased race time by more than 5 seconds with design of new steering

LEADERSHIP

Vice-President, National Society of Black Engineers (NSBE) |Jan 20XX-present

- Organize monthly speaker series, which has seven corporate and alumni presenters

Treasurer, ABC Organization | Aug 20XX-May 20XX

- Managed $4,500 in funds for 32 members and kept records of all activities
- Participate in events and help to mentor newer members

SKILLS

Software
Adobe CC
Illustrator
Solidworks

Programming
Python
Arduino
MATLAB
Mathematica

Hands-on
Mill
Lathe
Band Saw
CNC Mill
3D Printer
Laser Cutter
Soldering

ACTIVITIES & HONORS

Alpha Phi Omega Service Fraternity
Aug 20XX-present

Robotics Club
Aug 20XX-present

American Society of Mechanical Engineers (ASME)
Jan 20XX-present

Habitat for Humanity
Volunteer
May-Aug 20XX, 20XX

Student-Athlete | Women's Soccer Team, CMU
Aug 20XX-present

College of Engineering Dean's List
[GPA 3.75 and above]
X semesters