Carnegie Mellon University Master of Science in Computational Finance

MSCF CLASS OF 2020 EMPLOYMENT REPORT INTERNSHIP & FULL-TIME EMPLOYMENT

2020 INTERNSHIP & FULL-TIME EMPLOYMENT STATISTICS FOR MSCF STUDENTS WHO GRADUATED IN DECEMBER 2019.



FULL-TIME EMPLOYMENT INFORMATION

There is no common standard for reporting placement information among professional financial engineering master's programs, and the reports of such programs are not audited. MSCF is administered by the Tepper School of Business, and we follow the rigorous business school standards set by the MBA Career Services & Employer Alliance for Specialty Masters programs; see mbacsea.org/standards.

| | Permanent US Work Authorization* | Non-Permanent US Work Authorization | Number of Total Students | Percent of Total Students |
|-----------------------------------|-------------------------------------|--|-----------------------------|------------------------------|
| TOTAL STUDENTS | 10 | 85 | 95 | 100% |
| TOTAL NOT SEEKING EMPLOYMENT** | 0 | 2 | 2 | 2% |
| TOTAL SEEKING EMPLOYMENT | 10 | 83 | 93 | 98% |

* Permanent Work Authorization is defined as U.S. Citizens and Permanent Residents.

** Not-Seeking category includes one company-sponsored student and one student with no current information.

TIMING OF FIRST JOB OFFER

TIMING OF JOB ACCEPTANCE

| | Total Students | Percent of Total Students | | Total Students | Percent of Total Students |
|---------------------------------|-------------------|------------------------------|---------------------------------|-------------------|------------------------------|
| BY GRADUATION | 81 | 87% | BY GRADUATION | 72 | 77% |
| BY 3 MONTHS AFTER GRADUATION | 91 | 98% | BY 3 MONTHS AFTER GRADUATION | 88 | 95% |
| BY 6 MONTHS AFTER GRADUATION | 93 | 100% | BY 6 MONTHS AFTER GRADUATION | 92 | 99% |

* Statistics calculated using the graduation certification date of 1/10/2020.

Four accepted offers above include short-term, full-time internships (or short-term employment) as per MBACSEA Specialty Masters Standards. Short-term employment is defined as working 20 hours per week or more in a professional-level position for a minimum of 10 consecutive weeks.

FULL-TIME EMPLOYMENT COMPENSATION

| | Mean | Median | Minimum | Maximum | Number of Students Reporting Salary Information** |
|------------------|-----------|-----------|-------------|-----------|--|
| BASE SALARY* | \$108,846 | \$110,000 | \$36,000*** | \$175,000 | 85 |
| SIGNING BONUS | \$26,492 | \$25,000 | \$5,000 | \$57,500 | 60 |

* Excludes guaranteed and non-guaranteed bonuses, relocation expenses, stock options, and any other additional compensation.

** 92% of students who accepted an offer reported a base salary and 65% of students who accepted an offer reported a signing bonus.

*** Represents a salary outside the United States (converted to USD from CNY).



SOURCE OF EMPLOYMENT

SCHOOL-FACILITATED





78% OF STUDENTS FOUND JOBS USING SCHOOL RESOURCES

FULL-TIME EMPLOYMENT

JOB FUNCTION, INDUSTRY, AND LOCATION SUMMARY



JOB FUNCTION

| Quant Research | 38% | Risk M |
|-------------------|-----|---------|
| Strats & Modeling | 28% | Portfol |
| Sales & Trading | 19% | Quant |
| Data Science | 6% | |

| Risk Management | 4% |
|----------------------|----|
| Portfolio Management | 3% |
| Quant Developer | 2% |
| | |



INDUSTRY

| Investment Bank | 49% | FinTech |
|--------------------------------|-----|--------------------|
| Hedge Fund/Proprietary Trading | 24% | Financial Services |
| Asset Management | 16% | Other |



LOCATION

| New York | 64% |
|-----------------------|-----|
| Other US | 14% |
| Chicago/San Francisco | 12% |
| Hong Kong/Singapore | 7% |
| Other International | 3% |

90% of students secured full-time employment in the us

5%

4%

2%

DECEMBER 2019 GRADUATES FULL-TIME RECRUITING PARTNERS

| Employer | Job Title | Location | |
|--------------------------------------|--|---------------|--|
| | Analyst, Sales & Trading | Hong Kong | |
| | Analyst, Risk Strats | Jersey City | |
| | Analyst, Asset Management Strats (2) | | |
| | Analyst, IBD Strats (2) | 1 | |
| Goldman Sachs (15) | Analyst, Securities Strats (3) | 1 | |
| | Analyst, Strats (3) | New York | |
| | MBD Strats | | |
| | PWM Strats (2) | | |
| | Analyst | New York | |
| Bank of America Merrill Lynch (4) | Analyst, Global Quantitative Analytics | Atlanta | |
| Lynon (4) | Associate (2) | New York | |
| Chicago Trading (4) | Analyst, Quantitative Trading | Chicago | |
| | Analyst, Global Markets | Hong Kong | |
| Citi (4) | Market Quantitative Analyst (3) | New York | |
| | Associate | | |
| BNP Paribas (3) | Associate, Global Markets (2) | New York | |
| | Analyst, Sales & Trading | | |
| Deutsche Bank (3) | Analyst, FICC Strats | New York | |
| | Analyst, Strats | | |
| Quant Z (3) | Statistical Arbitrage, Internship | New York | |
| | Associate, Equity Derivatives Trader | New York | |
| Barclays (2) | Associate, High Yield Integrated Credit Trading | | |
| | Analyst | New York | |
| BlackRock (2) | Analyst, Systematic Fixed Income | San Francisco | |
| China International | IBD Analyst | Hong Kong | |
| Capital Corporation (CICC) - (2) | Private Equity Investment Analyst | Beijing | |
| IMC Trading (2) | Quantitative Researcher | Chicago | |
| Millennium Advisors (2) | Quantitative Research Associate | Charlotte | |
| Morgan Stanley (2) | Associate | New York | |
| | Analyst | | |
| Nomura (2) | Associate, Trading/Structuring | Hong Kong | |
| | Analyst | | |
| RBC Capital Markets (2) | Core Quantitative Associate | New York | |
| Trexquant Investment (2) | Data Scientist, Strategic Finance | Stamford, CT | |
| Alphadyne | Analyst | New York | |
| Amazon | Software Developer Engineer | New York | |
| ArrowStreet Capital | Associate | Boston | |
| Axioma | Associate, Implementation Specialist | New York | |
| BAM.Money Inc. | Data and Tech Developer | New York | |
| BNY Mellon | Quantitative Analyst | New York | |
| Cantor Fitzgerald | Associate, Quantitative Analyst | New York | |
| Citadel | Trader | New York | |
| Cutler Group | Quantitative Trader | San Francisco | |
| DebtX | Jr. Quantitative Analyst | Boston | |

| Employer | Job Title | Location |
|---|----------------------------------|---------------|
| ExodusPoint Capital | Quantitative Researcher | New York |
| Fidelity | Quantitative Analyst | Boston |
| Five Rings | Quantitative Trader | New York |
| Flair | Machine Learning Engineer | San Francisco |
| Gladius Capital | Quantitative Analyst | New York |
| Guardian Life | Quantitative Strategist | New York |
| Green Harbor Investment | Investment Analyst | Beijing |
| HAP Capital | Quantitative Research Associate | New York |
| Intercontinental Exchange | Quantitative QA | Atlanta |
| J.P. Morgan Chase | Analyst, Equity Derivatives | Hong Kong |
| Mackenzie Investment | Associate Investment Analyst | Boston |
| Mercuria Energy | Rotational Analyst | Houston |
| Millennium Partners | Analyst, Equity Volatility | New York |
| Nandu Technologies | Quantitative Researcher | Shanghai |
| Neuberger Berman | Quantitative Analyst | New York |
| OmniMarkets | Quantitative Analyst, Internship | New York |
| Optiver | Quantitative Trader | Chicago |
| PNC | Associate | New York |
| quantPORT | Quantitative Research Analyst | New York |
| S&P Global | Sr. Quantitative Analyst | New York |
| Squarepoint Capital | Quantitative Researcher | New York |
| Susquehanna Internation- al Group, LLP (SIG) | Quantitative Trader | Philadelphia |
| Virtu Financial | Quantitative Trader | Austin, TX |
| VWH Capital Management | Portfolio Analyst | New York |
| Weiss Multi-Strategy Advisers | Quantitative Analyst | New York |
| Wells Fargo | Data Scientist | Charlotte |
| Wolverine Trading | Quantitative Trader | Chicago |
| Xcel Energy | Quantitative Systems Consultant | Denver |



INTERNSHIP INFORMATION

2020 GRADUATES CONDUCTED INTERNSHIPS IN SUMMER 2019

| | Total Seeking Internship | Total Number Accepting Internship | Total Percent Accepting Internship |
|-------------------------------------|--------------------------|--------------------------------------|---------------------------------------|
| PERMANENT WORK AUTHORIZATION* | 10 | 10 | 100% |
| NON-PERMANENT WORK AUTHORIZATION | 82 | 82 | 100% |
| TOTAL STUDENTS | 92 | 92 | 100% |

* Permanent work authorization is defined as U.S. Citizens and Permanent Residents.

SUMMER INTERNSHIP MONTHLY COMPENSATION

| | Mean | Median | Minimum | Maximum | Number of Students Reporting Salary Information** |
|------------------|---------|----------|---------|----------|--|
| BASE SALARY* | \$8,055 | \$7,917 | \$3,467 | \$12,000 | 89 |
| SIGNING BONUS | \$7,500 | \$10,000 | \$2,500 | \$10,000 | 5 |

* Excludes guaranteed and non-guaranteed bonuses, relocation expenses, stock options, and any other additional compensation.

** 98% of students who accepted an offer reported a base salary and 6% of students who accepted an offer reported a signing bonus.



SOURCE OF SUMMER INTERNSHIP



* School-facilitated student visits to employers.



82% OF STUDENTS FOUND INTERNSHIPS USING SCHOOL RESOURCES

SUMMER INTERNSHIP

JOB FUNCTION, INDUSTRY, AND LOCATION SUMMARY



JOB FUNCTION

| Strats & Modeling | 27% | Portfolio Management | 9% |
|-------------------|-----|----------------------|----|
| Quant Research | 27% | Data Science | 3% |
| Sales & Trading | 24% | Quant Developer | 1% |
| Risk Management | 9% | | |



INDUSTRY

| Investment Bank | 54% | FinTech | 4% |
|--------------------------------|-----|--------------------|----|
| Asset Management | 24% | Financial Services | 3% |
| Hedge Fund/Proprietary Trading | 13% | Insurance | 2% |



LOCATION

New York Other US 59% 20%

Chicago/San Francisco11%Hong Kong/Singapore10%

DECEMBER 2019 GRADUATES INTERNSHIP PARTNERS

| Employer | Location | # of Interns | Employer | Location | # of |
|-----------------------------------|---------------|--------------|-------------------------------|----------------|------|
| Goldman Sachs (14) | New York | 12 | AQR | Greenwich, CT | 1 |
| | Hong Kong | 2 | Arch Capital | Raleigh, NC | 1 |
| Bank of America Merrill Lynch (5) | Atlanta | 1 | Argus Investment Management | New York | 1 |
| | New York | 3 | ArrowStreet Capital | Boston | 1 |
| | Hong Kong | 1 | BFAM Partners | | 1 |
| Deutsche Bank | New York | 5 | CICC | Hong Kong | 1 |
| Morgan Stanley | New York | 5 | Continental Finance | Newark, DE | 1 |
| Chicago Trading | Chicago | 4 | DoubleLine Group | Los Angeles | 1 |
| Citi (4) | New York | 3 | Federal Home Loan Bank | Pittsburgh | 1 |
| | Hong Kong | 1 | Fidelity | Boston | 1 |
| BNP Paribas | New York | 3 | Guardian Life | New York | 1 |
| PanAgora | Boston | 3 | IMC Trading | Chicago | 1 |
| Barclays | New York | 2 | Kaust Investment Management | Washington, DC | 1 |
| BlackRock (2) | New York | 1 | - | | _ |
| | San Francisco | 1 | MetLife | Morristown, NJ | 1 |
| BNY Mellon | Pittsburgh | 2 | PNC | New York | 1 |
| Cantor Fitzgerald | New York | 2 | Prudential | Newark, NJ | 1 |
| Credit Suisse | New York | 2 | Quant Z | New York | 1 |
| J.P. Morgan Chase (2) | Hong Kong | 1 | quantPORT | New York | 1 |
| | New York | 1 | Sintu Oppital | New York | 1 |
| Moody's | San Francisco | 2 | Sixty Capital | New York | 1 |
| Nomura | Hong Kong | 2 | Straterix | New York | 1 |
| RBC Capital Markets | New York | 2 | Transamerica | Baltimore | 1 |
| Susquehanna International Group | Philadelphia | 2 | Transmarket Group | Chicago | 1 |
| VWH Capital Management | New York | 2 | Virtu Financial | Austin, TX | 1 |
| Acadian | Boston | 1 | Weiss Multi-Strategy Advisers | New York | 1 |
| Alphadyne | New York | 1 | Wells Fargo | Charlotte | 1 |
| | | | Wolverine Trading | Chicago | 1 |

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"Carnegie Mellon University is a small research university that cannot afford barriers between departments. We choose not to do everything. Yet, in those areas where we choose to compete, we are among the world's best."

STEVEN SHREVE

Orion Hoch Professor of Mathematical Sciences Mellon College of Science **MSCF Co-Founder MSCF Steering Committee**

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