Reigniting Our Curiosity

My name is Andrew Kitahara and I am the IMS Student Board Member for this upcoming year. I earned my B.S. in materials engineering from Iowa State University in 2016 and I am currently a Ph.D. candidate at Carnegie Mellon University in the department of materials science and engineering. My current area of research, advised by Prof. Elizabeth Holm, is in applied computer vision techniques for augmented and autonomous microscopy. I am particularly interested in exploring what happens when computer vision and machine learning intersect with the domain knowledge that we have in metallography. To me, this is paramount to a successful future of data-driven materials science and materials discoveries.

As the IMS Student Board Member, I hope to engage both current members and the next generation of our ever-growing metallography community. I have two guiding missions in this new role: to lead IMS in developing a platform for metallography augmented with computer vision, and to increase the IMS outreach impact for the next generation of metallurgists and materials scientists.

The lens of a microscope provides a fascinating view of the world, and through my research I've learned that it only becomes more fascinating when we incorporate computer vision. With recent advances in computer vision, we have an opportunity to reignite our curiosity in metallography—to see the world in new, abstract ways. And I think this curiosity can help our outreach programs to grow.

Sharing traditional and emerging capabilities in metallography will inspire new talent, as we have always sought to do, but we too may learn something along the way. I hope you will join me on these missions and I look forward to serving IMS this upcoming year.

IMS
International Metallographic Society