

DARRELL OMO-LAMAI

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EDUCATION

Drexel University

BS/MS Materials Science and Engineering (Honors)
Five year/Three co-op program, Minor in Data Science

Philadelphia, PA
Anticipated graduation, June 2023
CUM GPA: 4.00

SKILLS

Techniques: Familiar with SEM, EDS, XRD, Micro-CT, Raman Spectroscopy
Programming Languages: Python, MATLAB®, SQL, R

CAD Software: Creo, AutoCAD

RESEARCH EXPERIENCE

Student Researcher at Theoretical and Applied Mechanics Group

June – September 2019

Drexel University, Philadelphia, PA

- Implemented experimental setup for tensile testing of additively manufactured Boeing titanium alloy and non-destructive evaluation by Digital Image Correlation and Acoustic Emission.
- Prepared titanium alloy for SEM and EDS characterization by mechanical polishing and chemical etching.
- Reviewed literature on effects of additive manufacturing and electropolishing parameters on built metal microstructure to establish reference results for characterization of aluminum alloy.
- Presented characterization and testing results at university-wide 2019 STAR Summer Research Showcase.

Measuring Air Quality with Kite-Based Sensors, EPA-Funded Project

April – June 2019

- Performed field deployment tests on kite-based environmental monitoring system to obtain geospatial data for system design and architecture optimization.
- Exhibited prototype of kite-based monitoring system at 2019 EPA Design Conference in Boston, MA.

PRESENTATIONS

- **D Omo-Lamai.** "Microstructure and Mechanical Behavior of Additively Manufactured Aluminum Alloys." Presented at the 2019 STAR Summer Research Showcase, Philadelphia, PA, August 29, 2019.
- R Cairncross, A Bhagwat, A Kloiber, **D Omo-Lamai**, J Lim, M Taing, S O'Dwyer. "Mapping Air-Quality with Kite-Based Sensors." Presented at the 2019 EPA P3 Student Design Conference, Boston, MA, June 17, 2019.

PROFESSIONAL EXPERIENCE

Monitoring, Analysis, and Research Support Engineering Intern

September 2019 – March 2020

Philadelphia Water Department, Philadelphia, PA

- Automated Excel-based data processing procedure by developing programs using R and SQL to analyze and visualize pressure transducer datasets, thereby enabling advanced hypothesis testing.
- Deployed pressure transducers at green infrastructure systems to obtain stormwater infiltration time series data for performance monitoring and exploratory analysis.
- Provided system retrofit recommendations to senior management through weekly testing reports.

LEADERSHIP & VOLUNTEERING

Undergraduate Research and Enrichment Programs Ambassador

September 2020 – Present

- Host discussion-based information sessions and office hours to encourage undergraduate student participation in research and professional development programs of the university.

Travel Coordinator for Drexel Engineers Without Borders

February 2020 – Present

- Coordinate remote implementation of water pipeline in Ecuadorian community to improve water supply.
- Designed roofing structure using Creo Parametric software to protect clarifier in Ecuadorian community from external contaminants.

HONORS

Supernova Undergraduate Research Fellow at Drexel University

September 2020 – Present

- Awarded university research fellowship based on demonstrated commitment to undergraduate research.

STAR Scholar at Drexel University

June 2019 – August 2019

- Selected to engage in 2019 faculty-mentored summer undergraduate research program at Drexel University.

Drexel Global Scholar at Drexel University

September 2018 – Present

- One of 14 applicants chosen from 700+ for full-tuition scholarship due to academic and leadership potential.
- Organized weekly meetings to support first-year international scholar as voluntary peer mentor.

Aspire Scholar at Drexel University

Oct 2019 – August 2020

- Selected as one of 15 students from sophomore class for professional development program based on intellectual curiosity.