

# Lauren Ficarelli

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## Education

**B.S. Materials Science and Engineering, University of California, Riverside**

**March 2017**

Relevant courses:

- Analytical Material Characterization
- Nanostructure Characterization Lab
- Intro to Nanoscale Engineering
- Physical Metallurgy
- Nanotechnology Processing Lab
- Mechanical Behavior of Materials

## Awards

- 2017 Broadening Participation in Materials – Undergraduate Poster Competition (2<sup>nd</sup> Place – Cash Prize)
- 2017-2018 AIST Foundation Steel Scholarship
- 2016 Nissley Makership - Scholarship for female engineers that provided courses on welding and soldering
- Naval Research Laboratory HBCU/MI Fellowship - Summer 2015 & Summer 2016
- Fall 2015 HSI Undergraduate Research Award

## Skills

- Scanning Electron Microscopy (SEM)
- Spark Plasma Sintering (SPS)
- Serial Sectioning
- Electron Backscatter Diffraction (EBSD)
- X-Ray Diffraction (XRD)
- MIG Welding
- Energy Dispersive Spectroscopy (EDS)
- Accumulative Roll Bonding (ARB)
- Soldering
- Machine Shop Training
- Exposure: FTIR, TGA, DSC
- SolidWorks
- Metallographic Preparation
- Microsoft Office: Word, Excel, PowerPoint

## Work Experience

**Undergraduate Research Assistant, University of California, Riverside,  
Mathaudhu Research Laboratory**

**October 2014 – Present**

- Prepared metallographic samples and characterized aluminum, magnesium, and steel alloys, composites and metallic glasses
- Accumulative Roll Bonded Bulk Metallic Glass/Metal Composites and prepared metallographic samples
- Welded a steel table for use in the metallography lab and trained peers to weld
- Trained new undergraduate and graduate students on standard operating procedures for lab equipment

**HBCU/MI Research Fellowship, U.S. Naval Research Lab, Washington, D.C.**

**June 2016 – August 2016**

- Educated NRL staff on material removal rates of the Robo-Met 3D serial sectioning device by finding relations between load and polishing parameters with the polishing plane using hardness indents
- Trained new interns on standard operating procedures for lab equipment

**HBCU/MI Research Fellowship, U.S. Naval Research Lab, Washington, D.C.**

**June 2015 – August 2015**

- Planned, executed and presented outcomes on an independent research project on processing-structure linkages in additively manufactured Inconel 718 through detailed microstructure characterization
- Learned new laboratory skills such as Electron Backscatter Diffraction Imaging and adapted them to the changing demands of research

**Student Assistant, California Environmental Protection Agency, Sacramento, CA**

**March 2013 – June 2014**

- Received and sorted packages from shipping companies and delivered them to 25 floors of the EPA daily
- Packaged and sent off items for EPA employees daily while taking care to recognize their shipping needs

**Secretary, Tim's Auto Body, Sacramento, CA**

**August 2012 – April 2013**

- Acted as the main face of communication between customers and auto-body technicians
- Gathered all information from customers including personal information and repairs needed on the cars
- Ordered, received, and organized all auto parts for repairs

## Extra-Curricular

**Founding Vice President, Material Advantage, University of California, Riverside**

**August 2015 - Present**

- Plan and participate in quarterly industrial field trips and host monthly guest speakers
- Volunteer outreach to middle school and high school students relating materials science to comic theory
- Organized a trip to Salt Lake City for the MS&T conference & to San Diego, CA for the TMS conference

## Publications

- Christian Roach, Lauren Ficarelli, Suveen Mathaudhu. Mechanical and Microstructural Characterization of a Multi-Axis Forged AZ31 Billet. Poster presented at: TMS 2017 146<sup>th</sup> Annual Meeting and Exhibition. February 28, 2017; San Diego, CA