

# Brandon Leu

Address: 17524 Robusta Drive, Riverside, CA 92503

Phone: (909) 217-1746

Email: Branleu@gmail.com

Citizenship: United States of America

**Interests:** Molecular dynamics theory and simulations, metallurgy, sustainable materials.

## Education

**BS in Materials Science Engineering, UC, Riverside**

Expected graduation date: 2016.

Sept 2012 - Present

GPA: Core 3.937 | Overall 3.899

**MS/PhD in Materials, UC, Santa Barbara**

Admitted: April 2016

Expected: Sept 2016

## Relevant Coursework

Multivariable Calculus	Organic Chemistry	Mechanical Behavior of Materials
Intro. MatLab	Thermodynamics	Electrical Properties of Materials
Intro. Materials Science	Chemistry of Materials	Nanostructure Characterization
Complex Circuit Analysis	Mechanics of Materials	Analytical Material Characterization
Intro. Nanoscale Engineering	Biomaterials	Nanotechnology Processing

## Experimental/Laboratory Skills

Scanning Electron Microscopy (SEM)	Thermo-Gravimetric Analysis (TGA)	Differential Scanning Calorimetry (DSC)
X-Ray Diffraction (XRD)	Nano/Micro Indentation	Mechanical Strength Analysis

## Work / Experience

### **Husk-To-Home Research Group**

Undergraduate Research - Advisor: Dr. Kawai Tam

May 2015 – Current

*University of California, Riverside*

Engineer a sustainable alternative building material made out of rice husks.

### **Mathaudhu Research Group**

Undergraduate Research - Advisor: Dr. Suveen Mathaudhu

Nov 2014 – Current

*University of California, Riverside*

Research the fundamental processing-microstructure-property-performance relationships in advanced metallic, ceramic, and composite materials.

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**Naval Research Enterprise Intern Program (NREIP) Fellowship** June 2015 – Sept 2015

Paid Internship - Advisor: Dr. Aaron Wiest & Dr. Suveen Mathaudhu

*Naval Surface Warfare Center, Corona Division*

Research the underlying physics behind Rayleigh-Instability in the formation of microspheres through a concentric nozzle system.

**Ozkan Energy Labs**

Mar 2014 – June 2014

Undergraduate Research – Advisor: Zachary Favors (PhD Candidate)

*University of California, Riverside*

Researched on advanced battery development. Prepared electrospun carbon nanowire samples for testing using oxygen-depleted glove-box and high-temperatures furnaces.

**J.M. Eagle Co.**

June 2011 – Aug 2011

Internship/Job Shadow - Advisor: Shi-En Wu

J.M. Eagle Co., Fontana

Learned AutoCAD Engineering design software and had an in-depth look at the manufacturing process from beginning to end.

### Talks/Presentations

**Fabrication of Microspheres Using a Concentric Nozzle System**

Dec 4, 2015

Undergraduate Research Presentation

*University of California, Riverside*

Fabrication of microspheres for possible applications as a new buoyancy material with impact absorbing properties.

### Competitions and Technical Reports

**12<sup>th</sup> Annual P3 National Sustainable Design Expo**

Apr 16, 2016

From: Engineers Without Borders-USA Professional Chapter

1<sup>st</sup> Place Superior Sustainable Design Award (\$1,000)

Advisor: Dr. Kawai Tam

*Washington, D.C.*

**University of California, Berkeley - Big Ideas**

Apr 13, 2016

From: University of California, Berkeley

2<sup>nd</sup> Place Energy & Resource Alternatives Award (\$7,500)

Advisor: Dr. Kawai Tam & August Rose Fern

*Berkeley, California*

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### **Environmental Protection Agency:**

Mar 23, 2016

#### **People, Prosperity, and the Planet (P3) - Phase 2 Award**

From: Environmental Protection Agency (EPA)

(Pending results- Expected: Aug 2016)

Advisor: Dr. Kawai Tam & August Rose Fern

### **Awards/Honors**

#### **Naval Research Enterprise Intern Program, Corona, Ca**

Dec 2015 – Present

Interns selected based upon academic achievements, personal statements, recommendations, and career/research interests.

Dec 2014 – Sept 2015

#### **Dean's Honors List (x10), UC, Riverside**

Sept 2012 – Apr 2016

Maintain above 3.5 GPA for an academic quarter.

#### **Chancellor's Honor List (x2), UC, Riverside**

Sept 2014 – June 2015

Dean's Honors List for all 3 quarters in an academic year.

Sept 2012 – June 2013

### **Volunteer/Outreach**

#### **4<sup>th</sup> Annual USA Science and Engineering Festival**

Apr 16-17, 2016

"The Super Science of Captain America's Shield!"

Sponsor: National Science Foundation (NSF)

Advisor: Dr. Suveen Mathaudhu

*Washington, D.C.*

Inspire young scientist to explore materials science through the world of super heroes.

#### **4<sup>th</sup> Annual USA Science and Engineering Festival, Washington, D.C.**

Apr 15-17, 2016

"A Sustainable Building Material for the Philippines!"

Sponsor: Environmental Protection Agency (EPA)

Advisor: Dr. Kawai Tam

*Washington, D.C.*

Inspire young scientists and engineers to explore waste materials as a possible resource to promote sustainability- particularly in impoverished communities.

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### **Referee/Event Coordinator**

Jan 2007 – Current

Yu-Gi-Oh!

Sponsor: Konami Digital Entertainment

Judge at large competitive tournaments consisting of 2000+ players. Plan, organize, officiate and the main event as well as side events in a child friendly environment for players ranging from 8-40 years old.

### **Tutoring/Supervising**

Sept 2009 – Dec 2009

James S. Thalman Chino Hills Branch Library

Supervised children and lead activities such as reading and movie time. Tutored students who needed help in any Jr. High level or lower subjects.

### **Language Skills**

- Fully fluent in English
- Moderately fluent in Mandarin Chinese