

Education

- 2009-present **Expected Graduation: 6/2012**
University of Washington Seattle, WA
- B.S, Materials Science and Engineering.
Departmental GPA: 3.47
Cumulative GPA: 3.31

Courses Taken:

<i>Failure Analysis</i>	<i>Materials Characterization</i>	<i>Mechanical Behaviors of Materials</i>	<i>Functionalities of Materials</i>	<i>Electrical Properties of Materials</i>
<i>Material Processing</i>	<i>Material Thermodynamics</i>	<i>X-Ray Diffraction & Crystallography</i>	<i>Integrated Laboratory</i>	<i>Diffusion Kinetics</i>

Senior Courses:

<i>Biomaterials and Biomimetics</i>	<i>Polymer Science & Engineering</i>	<i>Optoelectronics and Photonics</i>	<i>Molecular Engineering</i>
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- 2007-2009 **North Seattle Community College** Seattle WA
- A.S. Applied Science. Running Start Student.
Cumulative GPA: 3.46

Work Experience

- 2011-present **Materials Science and Engineering: Pauzauskie Research Group** Seattle, WA
Undergraduate Research Assistant
- Assisting graduate principle investigator with her research topic in terms of characterization, data evaluation, and approach.
 - Fluent with seed-mediated and hydrothermal syntheses.
 - Will result in publication.
 - Other duties include: ordering equipment and materials necessary for research.
- 2010-present **University of Washington; Nanotech User Facility.** Seattle, WA
Laboratory Assistant
- Assisting with equipment instructions.
 - Trained personnel on the *SEM* (Scanning Electron Microscope), *Mask Writer*, *Thermal Evaporator* (Chromium and Gold), *AFM* (Atomic Force Microscope), *EBL* (Electron Beam Lithography) and *Raman Spectroscopy*.
 - Current Project: "Characterization of Monolayer Graphene with AFM and Raman Spectroscopy for Field-Effect Transistors."
- 2009-present **University of Washington; Classroom Support Services.** Seattle, WA
Senior Operator
- On-site technical (media) assistance for clients to support classroom instruction and special events held in Kane, Mary Gates and Johnson Halls.
 - Training/leading incoming operators to perform equipment maintenance.
 - Preventative maintenance on campus equipment.

Research

- 2011-present **Senior Thesis: Department of Materials Science & Engineering** Seattle, WA
Undergraduate Researcher
- Topic: "Mass-statistical particle-tracking of gold nanorods and spheroids under Brownian motion."
 - Researching in an independent basis with publishable results.

- 2010-2011 **Materials Science and Engineering Laboratory Research Project** Seattle, WA
Undergraduate Researcher
- Providing weekly research reports to principle investigator for feedback.
 - Topic: “Characterizing the Effects of Etching on Monocrystalline Silicon Reflectance for Photovoltaic Applications.”
 - A four-month research project consisting of five members stating the thesis, designing project, managing budget, characterizing samples, and evaluating data.
 - Created a research proposal complete with abstract, procedures, expected results, and budget justification.
 - Provided a final written report and oral presentation.

- 2010-2011 **University of Washington Boeing Research Group** Seattle, WA
Undergraduate Researcher
- Topic: “Evaluating Long Term Aging Effects on Flammability Performance of Thermal/Acoustic Insulation Materials.”
 - Team Setting: Various methods of artificial aging for the span of one month.
 - Provided a final written report and oral presentation

Presentations

- Sept 2011 **Materials Science & Technology Conference and Exhibition** Columbus, OH
Undergraduate Research Poster Competition
- “Synthesis and Particle Tracking of Gold Colloids for Photothermal Therapy”

Activities

- 2011-present **Keramos, National Professional Ceramic Engineering Fraternity**
President
- Ensuring the health of the officers and the society as a whole.
 - Active participant in the yearly Materials Science & Technology conference and competitions.
 - Planning and coordinating fundraisers and events.
- 2011-present **Material Advantage**
Outreach Member
- Travel to various different locations to promote the benefits of Material Advantage.
 - Introduce the topic of Materials Science & Engineering to audiences in the age range of kindergarten to pre-engineers.
 - Active member of the Material Advantage Magazine editorial division.

Personal Information

- Members:** Material Advantage
Keramos, The National Professional Ceramic Engineering Fraternity
University of Washington Husky Tennis Club
Phi Sigma Theta NHS
- Awards:** Keramos President-elect – 2011
Paul A. Bundy Endowed Scholarship – 2011
ACerS Nuclear and Environmental Technology Student Grant – 2011
- Skills:** SolidWorks CAD, MATLAB, basic LabVIEW, Media Equipment, ImageJ Particle Tracking,
Hydrothermal Synthesis, Seed-mediated Synthesis, EBL, SEM, AFM, Raman, UV-Vis, Profilometry,
Thermal Evaporator, and Mask Writer.
- Trilingual:** Fluent in Chinese (Mandarin), Spanish, and English.
- Profile:** <http://www.linkedin.com/in/hsiehsteven>