

Shaun Harris | Mechanical Engr.

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Education

Stanford University

M.S. Mechanical Engineering, Current GPA – 3.71

Stanford, CA

Dec 2017

- Depth in Fluid Mechanics

Utah State University (USU)

B.S. Mechanical Engineering, GPA – 3.95

Logan, UT

May 2016

- Summa Cum Laude
- Emphasis: Aerospace
- Minors: Management and Mathematics

Utah State University

A.S. General Studies, GPA – 4.0

Logan, UT

Aug 2010

Experience

Sandia National Laboratories

Technical Undergraduate Year-Round Intern

Albuquerque, NM

05/15 – 08/16

- Uncertainty quantification, verification, and validation of computation model of thermal batteries and presented findings to professional Sandia researchers

High Performance Computational Fluid Dynamics Lab (USU)

Undergraduate Computational Fluid Dynamics (CFD) Researcher

Logan, UT

05/14 – 04/16

- Coded, as part of a team, parts of a CFD strand code (C++ and Fortran)
- <http://hipercfd.usu.edu/>

Experimental Fluid Dynamics Lab (USU)

Undergraduate Research and Creative Opportunities Grant Recipient

Logan, UT

1/14 – 12/14

- Led research and conducted experiment
- Presented research at Utah Fluids Community Conference (2014)
- Presented at 67th Annual APS Division of Fluid Dynamics Conference in San Francisco
- <http://meetings.aps.org/link/BAPS.2014.DFD.R29.9>

Experimental Fluid Dynamics Lab (USU)

Undergraduate Research Assistant

Logan, UT

12/12 – 03/14

- Assisted CFD validation experiments for safety analysis of nuclear reactors
- Designed and assembled various parts for particle image velocimetry (PIV) experiment
- http://efdl.neng.usu.edu/EFDL/EFDL_Home.html

Synthetic Biomufacturing Center (USU)

Undergraduate Research Assistant

Logan, UT

06/10 – 12/10

- Experimental phase of cohabitating two species in growth reactor for effective bio- diesel algae production
- Presented research finding to professors at conclusion of summer research

Awards

Fall 2016: Stanford Graduate Engineering Fellowship Award

Spring 2016: Academic Excellence Senior

Spring 2015: Outstanding Undergraduate Researcher

Fall 2014: A-pin award

Spring 2014: Outstanding Pre-Professional Award

Undergraduate Scholarships: George S. & Dolores Doré Eccles Foundation University, Integrated University Program, USU Presidential, and New Century

Spring 2010: High School Salutatorian of 453 students

Skills

Computer Skills.....

Coding: Python, MatLab, C++, Fortran, Linux OS, batch scripts for HPC, Vim, and LabVIEW

Software: ParaView, Solid Works, and Solid Edge

Written: Microsoft Office, L^AT_EX, and \approx 90 WPM

Research and Experimental Skills.....

Technical: hand tools, saws, mills, drill presses, and soldering

Presentational: verbal and technical presentations

Biological: autoclave, optical density machine, centrifuge, flow hoods, and pipets

Leadership and Volunteer

01/15 – Current: Member of the Tau Beta Pi Society

01/14 – Current: Member of the American Nuclear Society (ANS)

- Communications Officer (ANS) USU section

- Kept meeting minutes, managed email, constructed flyers, and photographed events

01/13 – 11/13: Member of the American Society of Mechanical Engineers (ASME)

01/11 – 12/12: Full-time Service Volunteer for non-profit organization in Atlantic Canada

- Leader over fellow volunteers in door-to-door communications

- Trained and instructed fellow volunteers in presentation effectiveness

- Worked with people providing addiction recovery and life coaching

2008: Eagle Scout

Conferences

Shaun Harris and Barton Smith. Olive oil tracer particle size analysis for optical flow investigations in a gas medium. In *67th Annual Meeting of the APS Division of Fluid Dynamics*, 2014.

O. Tong, Y. Yanagita, R. Schaap, S. Harris, and A. Katz. High-order strand grid methods for shock turbulence interaction. In *22nd AIAA Computational Fluid Dynamics Conference, Dallas TX*, pages AIAA–Paper AIAA 2015–2283, 2015.

B. Trembacki, S. Harris, E. Piekos, and S. Roberts. Uncertainty quantification, verification, and validation of a thermal simulation tool for molten salt batteries. In *47th Power Sources Conference, Orlando FL*, 2016.