Jonathan H. Green

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123 Sheldon Ave #16
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Education

Iowa State University – *Ames, Iowa*
Bachelor of Science, Mechanical Engineering (Expected Graduation May 2019)
Minor, Computer Science GPA: 3.67

Akedemie für Internationale Bildung – *Bonn, Germany* July – August 2015
Completed intensive German language immersion course at the C1 level

Work Experience

Claussen Lab Group – *Ames, Iowa* January 2017 – Present

- Investigated use of consumer SLA 3D printers for biosensing applications
- Created 3D models of components in Solidworks for rapid prototyping and 3D printing
- Performed computational simulations to predict and verify experimental data

Mechanical Engineering Peer Mentor – *Ames, Iowa* August 2016 – Present

- Led a classroom of 25 mechanical engineering freshmen in an academic-based learning community
- Facilitated a variety of in-class activities, including study sessions and informational presentations
- Met with students individually to evaluate and address any issues encountered in their first year of study

Baskar Ganapathysubramanian Research Group – *Ames, Iowa* January 2016 – July 2017

- Simulated block copolymer microstructures using an in-house computational framework
- Created a framework for efficiently creating phase diagrams for confined block copolymer systems
- Developed bash scripts in a Linux environment to sort, organize, and manipulate large volumes of data
- Collaborated with other group members to test and recommend features for a high-performance computing user interface

Dimensionalley GmbH – *Berlin, Germany* March 2015 – May 2015

- Worked extensively with and ensured proper maintenance of commercial FDM 3D printers
- Instructed introductory 3D printing workshops in German
- Designed and fabricated custom 3D models according to customer specifications

greateyes GmbH – *Berlin, Germany* November 2014 – March 2015

- Assisted production and development teams in prototyping new products and assembling existing ones
- Designed custom device housings using Inventor Professional which were later 3D printed
- Translated product manuals and other materials from English to German

Volunteer Experience & Club Leadership

Sponsorship Coordinator – Cyclone Space Mining – *Ames, Iowa* August 2017 – Present

- Responsible for soliciting monetary and material donations from companies
- Raised funds and materials to build a mining robot and compete in the spring NASA Robotic Mining Competition
- Maintain relationships between club and sponsors to ensure all sponsorship benefits are fulfilled

Tau Beta Pi Genesis Design Team February 2017 – Present

- Worked with an interdisciplinary team to design and create devices intended to help disabled individuals succeed in their workplace
- Brainstormed, designed, and built ideas for device to assist with towel folding in a laundry facility
- Delivered a final product at the end of the first semester of the project

KURE Fest Director – *Ames, Iowa* April 2016 – Present

- Booking, managing, and directing an annual two-day music festival hosted by non-profit, student run radio station
- Delegated tasks to radio station directors and volunteers
- Ensured quality hospitality for artists and their teams
- Planned and allocated a budget of $23,000+

Research Presentations

Iowa State University Undergraduate Research Symposium April 2017

- Effects of Confinement Geometry on Diblock Copolymer Systems Using Finite Element Analysis

National Conference on Undergraduate Research – Oral Presentation April 2017

- Effects of Confinement Geometry on Diblock Copolymer Systems Using Finite Element Analysis

Materials Research Society Fall Meeting – Poster Presentation November 2016

- Exploration of Confined Polymer Microstructures using a Finite Element Based High Throughput Computational Platform

Iowa State University Honors Poster Presentation – Poster Presentation April 2016

- A Computational Study of Confinement Effects in Block Copolymers

Projects

Aerospace Engineering 490I – "Engineering and Manufacturing Best Practices" Fall 2017

- Group project based course focusing on designing mechanisms for lunar ice mining
- Designed tests and test rigs to evaluate the feasibility of selected designs
- Using collected data and FMEA results to guide design direction

D-Bot 3D Printer Build Summer 2017-Present

- Researched multiple open source 3D printer projects before deciding on D-Bot CoreXY design
- Sourced and purchased components with an emphasis on quality and affordability
- Modified design to include new contributions to project

Skills

- High proficiency with Matlab, Solidworks
- Medium proficiency with Java, Bash scripting, and working on Linux systems
- Working knowledge of Python, Inventor Professional, and Microsoft Office
- C1 "Effective Operational Proficiency or advanced" Level German