

## Education

2015–2019 **BS–Computer Science, Mathematics, Purdue University**, West Lafayette, IN.

Specialization: Database and Information Systems, Machine Intelligence

Pursuing Entrepreneurship Certificate

Awards: *Recipient of the Purdue University Presidential Merit Scholarship*

**Relevant Course Work**, *Systems Programming in C and SQL, Data Structures and Algorithms in C++*, Computer Architecture in C and Assembly, Object Oriented Programming in Java, Introduction to Entrepreneurship.

## Technical Expertise

### Programming / Scripting Languages.

Proficient: C/C++, Java, C#, Objective-C, SQL, ASP.NET, Swift,  $\text{\LaTeX}$ , Assembly

Familiar: Python, Ruby/Ruby on Rails, HTML/Jade, CSS/SASS, JS Framework

### Programs/API's/Frameworks.

Proficient: .NET Framework, iOS Framework, Android Framework, Cocoa/Objective-C API, Linux /Unix Framework, SOC/ARM RISC Architecture, OpenCV API

Familiar: TCP/IP Protocols, Mac OS Framework, Chrome API, AWS, OpenGLut

## Work Experience

Present **Undergraduate Researcher**, *Applied Optics Laboratory*, West Lafayette, IN.

Developing an iOS application that coordinates with external hardware and sensors to analyze data. In addition, updating legacy Android applications, and algorithms development for picture processing and modulation in concurrency with OpenCV API.

Fall 2016 **Software Engineering Intern - BackEnd**, *IronGolfer*, West Lafayette, IN.

Created a backend framework using .NET backend server SDK and table API in C# for an iOS application, along with assisting the UI/UX team with FrontEnd development.

Summer 2015 **Research Intern - Automation**, *Angelhack*, San Francisco, CA.

Assisted in the development, revision, and automation, of the main submission system used for Angelhack hackathons.

## Projects

**Convex Hull Maker**, C++, <https://github.com/osterhagen/ConvexHulls> .

Developed a GUI using OpenGLUT that takes an array of points and returns the Convex Hull. Used Jarvis Hull and Graham Scan algorithms to find the outermost points for the hull, and multiple sorting algorithms to assist in the scanning.

**Email Server**, Java, [github.com/osterhagen/Email\\_Server](https://github.com/osterhagen/Email_Server) .

Created a command line style email server that could store password protected emails using different internal storage mechanisms that were encrypted while still being SQL friendly.

## Volunteer Experience

Present **Treasurer**, *BoilerMake Executive Board (Purdue's Collegiate Hackathon)*.

Present **Sponsorship/Partnership Committee Member**, *BoilerMake Executive Board*.

2015-2016 **Issues and Facilities Committee member**, *Purdue RHA Legislative Branch*.

Awards: Appreciation of Service and Contribution - Executive Board

2015-2016 **Assembly-member**, *Purdue RHA (Residence Hall Association) Legislative Branch*.

2013-2015 **Patient Service Ambassador / Shift Leader**, *Kaiser Permanente Hospital*.