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## **Education**

#### **Bachelor of Computer Engineering**

University of Minnesota, Twin Cities, Minneapolis, Minnesota

**Expected Graduation, 2021** 

# **Work Experience**

Seagate Technology Shakopee, MN

Hardware Systems Engineering Intern

5.20-Present

- Worked to incorporate comprehensive NVMe device support to a Seagate-internal program used for hard drive diagnostics and testing, using C and C++, on both Windows and Arch Linux.
- Recalibrated and wrote additional, updated code for HDD performance model.
- Performed Monte Carlo product portfolio projections and visualized data using Visual Basic and R.

#### **TA Instruments** Electroforce Division

Eden Prairie, MN

6.19 - 12.19

Research & Development Intern

- Designed, coded, and prototyped a fully functional, GUI-controlled computer vision system that utilizes machine learning
  to distinguish similar devices from one another, the concept of which is being provisionally patented.
- Designed and prototyped multiple high-density cooling assemblies for linear long stroke motors, using both Solidworks and ANSYS.
- Worked with the Research and Development team to research and design a custom heatsink for cooling custom power amplification boards.

Starbeat Intermedia, Inc.

Deerfield, IL

Technical Intern

6.18 - 8.18

5.18 - 12.18

- Assisted with editing and producing visual and auditory media for use as radio and television advertisements.
- Maintained the computers and recording/editing systems in use.

Mathnasium Highland Park, IL

Math Tutor

• Tutored children of all grade levels in math, from basic skills through calculus to help them to develop a firm, concrete understanding of the building blocks of basic mathematics as well as mastering high levels of math.

Online Merchant Minneapolis, MN

eBay

Own and operate an online eBay store selling restored and refurbished electronics.

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## Computer Engineering Project Work

## University of Minnesota Solar Vehicle Project (Project Website)

Minneapolis, MN 9.17 – Present

Driver/Lead IT Technician/PCB Design Team Member/Cable Management Lead

- Traveled as part of the UMN team to Australia for 6 weeks in the fall of 2019 to compete in the <u>Bridgestone World Solar Challenge</u>, where our car, Eos II, placed fifth in the cruiser class.
- Technical team lead in charge of overseeing all computers and electronic test equipment. This involved hands-on building, updating, and fixing multiple electronic components.
- In charge of routing cables throughout the vehicle and ensuring cables are properly shielded from the electric noise of the car's motors, while adhering to all race regulations.
- Maintain and upgrade the team's locally-hosted wiki.
- In charge of gaining and maintaining sponsorship from multiple Fortune 500 companies.

## Alpha Chapter of Theta Tau Professional Engineering Fraternity

Minneapolis, MN

Member and Co-Chair of Philanthropy Committee

9.18 - Present

2014 - 2017

 Co-chair of the Philanthropy Committee, organizing events to benefit the Minnesota community, including Goodwill donations, Feed My Starving Children, and raising money for various charitable organizations.

FIRST Tech Challenge Highland Park, IL

Lead CAD and Design Specialist, Builder

Worked with a team to engineer and build a robot capable of performing pre-determined challenges in competition.
 Utilized Autodesk Inventor Pro CAD Software for robot design.

• Team robots advanced to the Super-Regional level of competition 3 years in a row and to the World level in 2017.

### **Additional Noteworthy Project**

3D Printer

2015 - 2017

• Designed and custom-built a 3D printer, from 3D-printed parts.

## **Skills**

- Programming Languages: C++, C, Java, HTML5, CSS, Python, Verilog, ASM, MATLAB, R, Visual Basic, Processing
  - CAD Software: Altium, NI Ultiboard, Solidworks, PTC Creo, ANSYS, Autodesk: Inventor Pro, Fusion 360, Revit, AutoCAD
  - Design Software: CorelDraw, Final Cut Pro 7, GIMP, Adobe: Illustrator, Photoshop, Dreamweaver, After Effects, Premiere
  - Operating Systems: MacOS, OpenBSD 6.3, Ubuntu, Arch Linux, Windows: XP, Vista, 7, 8, 8.1, 10
  - Other Software: Google: Drive, Docs, Sheets; Microsoft: Word, Excel, Outlook, PowerPoint
  - Machinery: WaterJet cutting systems, Manual Mills & Lathes, Laser Cutters, 3D Printers