Julia Schatz

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SUMMARY

Electrical Engineering junior seeking opportunities in robotics and embedded development. Experience in control systems and power electronics.

EDUCATION

University of Minnesota - 3.59 GPA Minneapolis, MN
Bachelor's of Electrical Engineering *Expected Graduation: May 2021*

RELEVANT SKILLS

- Control System Design (PID & state-space control, motion planning)
- PCB & Embedded System Design
- Mechanical Design (Solidworks CAD, 3D printing)
- Programming (Python, C, Matlab, Java, and others)
- Microsoft Office

RELEVANT PROJECTS AND EXTRACURRICULARS

- **UMN Robotics team**
  - *Robot in 3 Days* - Project Lead. Coordinated a large team with intense deadlines.
  - *BotShot* - Developed computer vision assisted aiming program for robotic basketball competition. Characterized varying shot angles and speeds for optimal accuracy.
  - *NASA RMC* - Developed autonomous robot for simulated lunar mining mission. Worked with ROS and real-time controllers.
- **Custom Quadcopter** - Designed a medium-scale quadcopter that self-stabilizes using LQR control.
- **"Differential Swerve" robot** - Designed an omnidirectional robot that uses independent differential steering modules. Uses custom rotation sensor and ESC boards.
- **Custom ESC** - Designed a 9V 20A capable H-bridge DC speed controller. Selected hardware, designed PCB using EAGLE, wrote AVR firmware using embedded C and Assembly language.

WORK EXPERIENCE

University of Minnesota OIT - Service Desk *August 2018 - Present*
MarketSource - Wireless Sales Associate *May 2018 - August 2018*
AMC Theatres - Associate *September 2017 - May 2018*
Open Access Technology International, inc. Minneapolis, MN
Software Development Intern *June 2016 - August 2016*

- Worked with a team of OATI employees to assist with device and software testing. Created inventory and issue tracking workflows. Conducted internal user experience surveys to improve documentation.

VOLUNTEER EXPERIENCE

Twin Cities Unicycle Club - 50 hours per year *2014 - Present*
BHS Robotics Team - 100 hours per year *2014 - 2018*
FIRST Tech Challenge Team Mentor - 50 hours per year *2015 - 2018*