

JONATHAN E. MCAVOY

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EDUCATION

Bachelor of Science, Electrical and Computer Engineering anticipated May 2020
Rowan University GPA: 3.751 / 4.000, Dean's List

TECHNICAL SKILLS

Bash | C | C++ | C# | HTML | Java | JavaScript | MATLAB | PHP | Python | Rust | SQL | Swift | Verilog
Software Engineering, Linux Development, and Embedded Systems

TECHNICAL PROJECTS

Autonomous Quadcopter September 2017 - Present
Rowan RAS

- Fully autonomous drone capable of navigating to waypoints, dropping a payload, and detecting targets using image recognition.
- Integrates a flight controller, SOC image processing, navigation sensors and a custom power regulation circuit, on a custom designed aluminum frame.

Lab Log Tool May 2018 - September 2018
Harris Cooperation, Project Lead

- Web application used by FAA employees to record lab logs, schedule lab times, and generate metrics.
- Back-end: Linux server running a Nodejs web server, a Postfix mail server, and MySQL database.

Augmented Reality Using Structured Light (ARSL) September 2018 - Present
Junior Clinic

- A novel image processing method for creating an AR environment using projected light and a camera.
- Developed MATLAB, C++, and Android proof of concept applications using the ARSL method.

Rowan Resource Center Server September 2017 - Present
A-Team, Project Lead

- Linux server running multiple virtual machines, a web server written in Rust, and MySQL database.
- Hosts web applications for tracking employee hours, equipment loans, 3D printer queue, and chemical inventories.

Profhacks Website September 2017 - Present
Rowan IEEE, Project Lead

- Nodejs-based website for Rowan IEEE's annual Hackathon.

WORK EXPERIENCE / INTERNSHIPS

ECE Resource Center Technologist, Rowan Apprentice Engineering Team (A-Team)	January 2018 - Present
Datacom Intern, Harris Cooperation	May 2018 - September 2018
Chemical Engineering Lab Assistant, Rowan University	February 2017 - September 2017
Data Entry and QA Intern, Siegfried USA, LLC	June 2016 - September 2016
VR Intern, Virtual Reality Center, Rowan University	May 2016 - August 2016

PROFESSIONAL SOCIETIES/AWARDS

Rowan University IEEE Student Branch (Rowan IEEE), Service Chair, Student Member of the Month
Robotics and Automation Society Student Branch (Rowan RAS), Project Coordinator Chair
Engineers Without Borders Student Branch, Web Master