

Natalie Corwin

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Online Portfolio: <http://ncorwin.github.io/>

EDUCATION

Northwestern University, Evanston, IL

MS in Robotics Engineering.....Graduated December 2016

- **GPA:** 3.63/4.00
- **Relevant Coursework:** Robotic Manipulation, Embedded Systems, Dynamic Simulation, Mechatronics, Digital Image Analysis, Feedback Systems, Machine Learning, Optimal Control
- **Projects:** Jamming Gripper for Baxter Robot, Droplet Placement system for PPOD Project

Trinity College, Hartford, CT

BS Engineering, Mechanical Concentration, Minor in Studio Art.....Graduated May 2015

- **GPA:** 3.20/4.00
- **Relevant Coursework:** Introduction to Robotics and Design, Statics, Dynamics, Engineering Materials, Mechanics of Materials, Linear Algebra, Linear Circuit Theory, Automatic Control Systems, Introduction to Java Programming, Fluid Dynamics
- **Extra Curricular:** Robot Study Team, Engineers Without Borders

SKILLS

- 3D Printing, Mechanical Design, Machining, Woodworking.
- PCB Design, Circuit Design, Wiring and soldering.
- CAD software (Autodesk Inventor, Solidworks, OnShape, Siemens NX), Image Editing software (Photoshop, GIMP)
- Programming: Python, C, C++, C#, Basic Java, MATLAB, Gcode, APT, Labview, Fanuc TP, Karel, ABB RAPID
- Microsoft Hololens, Unity Development, Android Development, Linux OS, Robot Operating System (ROS)

WORK EXPERIENCE

Pratt & Whitney, Production Coatings Group, Hartford, CT

Robot Programmer.....February 2017 - Present

Active SECRET Clearance.....December 6, 2018 - Present

- Provide programming support for production coatings group
 - Plasma spray: Writing and modifying Fanuc and ABB programs for plasma spray and waterjet applications
 - Laser Drill: Writing/Modifying Gcode and supporting development and testing on CNC laser drills
 - Offline Programming: setting up offline simulations of existing production robotic processes
- Developing new automated processes to improve production
 - Automating engine part setup: Adding feedback systems to spray robots to locate and adjust part positions
 - Automated edge dressing: Developing robotic systems to map parts and remove excess coating
 - Non-contact part measurement: Developing systems to measure coating thickness non-destructively
 - Improvements: Utilizing unused features on existing machines to improve automated processes

AIR, Northwestern University Garage (Incubator), Evanston, IL

Startup Company, Software Engineer.....July-October 2016

- Developed software platform for Hololens/Augmented Reality hardware
- Wrote Unity 3D code to create holograms that could be positioned in the real world
- Won 1st prize in Motorola Sponsored Demo Day pitch competition

X-IO, Colorado Springs, CO

Internship.....December 2014, Summer 2014-2015

- Assisted Hardware team prototype and test new server components