

# Nathan Rosenberg

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## Summary of Skills

- Java, C#, C++, Python
- HTML, CSS, JavaScript
- TensorFlow, ROS, Matlab
- UNIX/LINUX, AWS
- NodeJS, React, React Native
- Photoshop, SolidWorks
- Robotics
- Artificial intelligence
- Server administration
- Web design & development
- Graphic design
- Project management

## Education

**WORCESTER POLYTECHNIC INSTITUTE | 2015-2019 | B.S. ROBOTICS ENGINEERING**

## Work Experience

**CEO | DROPWISE, INC. | JULY 2016 - PRESENT**

- Dropwise is a digital social platform that connects businesses who care about modern brand building to young people who care about modern charitable giving. As a company we are building products that empower young people to contribute to the causes they care about by turning fun, social activities into opportunities for action.

**LAB ASSISTANT | WORCESTER POLYTECHNIC INSTITUTE ROBOTICS LAB | MAY 2017 - AUG 2017**

- Helped develop the software stack for the new 3DOF robotic arm for the redesign of the RBE3001 class. This included HID communications between a microcontroller running Mbed and Matlab, full kinematics models, and real-time control.

**TECHNICAL DIRECTOR | INITIATIVE FOR ENGAGED CITIZENSHIP | JAN 2015 - SEP 2015**

- IT consultant and web developer for non-profit organization in Worcester, MA. Designed and developed a new site to reflect the new direction and image of the non-profit as well as implemented an ecommerce tool to replace an out of date one for fundraising purposes.

**ENGINEERING TECHNICIAN | SAUNDERS INSTRUMENTS, INC. | JUL 2013 - SEP 2014**

- Designed and built an electronic testing unit for prototype LEDs to be used in place of powerful halogen lamps in medical equipment to ensure their reliability, both long and short term.
- Designed and built a device to measure the penumbra of the projection produced from light shining through lead "jaws."
- Translated paper mechanical drawings into CAD parts on SolidWorks.

## Projects

- Built a robot using ROS to navigate a maze and find and extinguish a candle. This robot is currently in the robotics trophy case at WPI.
- Developed a LSTM-based AI to do time-series prediction for cryptocurrencies, including Bitcoin. This achieved 88% average accuracy for 12 hours in the future.
- Planned and ran an online gaming charity event in July of 2015 that raised over \$5,500 in 36 hours for Child's Play charity.