

# Michael Yang

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## Education

**Rutgers University | New Brunswick, NJ**

**September 2015 – January 2020**

B.E. Mechanical Engineering and B.S. in Computer Science

**GPA:** 3.132

**Relevant Coursework:** Mechanics of Materials, Elements of Electrical Engineering, Dynamics, Thermodynamics, Design of Mechanical Components, Mechanical Properties of Materials, Fluid Dynamics, Mechanical Engineering Measurements, Data Structures, Computer Architecture, Software Methodology

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## Technical Skills

**Software:** Microsoft Word, Microsoft Excel, Microsoft PowerPoint, Mission Planner, ANSYS, DraftSight, InkScape, SolidWorks

**Editors/IDEs:** Eclipse, Visual Studio, Atom, Jupyter Notebook, Arduino IDE

**Technologies:** ROS (Robot Operating System), Raspberry Pi, LiDAR, CompactRIO, Pixhawk, Nvidia Jetson TX1

**Proficient:** Java, HTML/CSS, JavaScript, Matlab, Python, C, Ruby, Assembly Language, Bash Script

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## Experience

**Research Assistant | Rutgers University Applied Fluids Laboratory**

*Indoor Mapping Drone*

**June 2018 – Present**

- Used LOAM algorithm to map an indoor area using the VLP-16 Velodyne LiDAR.

**Research Assistant | Mazzeo Research Group Laboratory**

*Paper Robotics*

**June 2017 – October 2017 | February 2018 – March 2018**

- Outlined the design of a paper snake robot, tentacle, and grabber using pneumatics or nitinol wire.

- Pneumatic tubes were attached to certain parts of the robot and used to expand or contract these parts for movement. Nitinol wire was lined along the folds of the paper with the intention that the paper robot can fold itself and keep its shape.

*Paper Rupture Sensor*

**June 2016 – August 2016**

- Designed and tested rupturing pressure sensor with paper and liquid metal. Created microfluidic channels in paper and observed its use in creating a paper pressure sensor and paper touch sensor.

- Experimented with an EEG sensor made of paper and conductive paste.

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## Projects

**Comic Colorization**

**July 2017 | April 2018 – May 2018**

- Incorporate the open-source library TensorFlow to create a Python neural network that can be used to color in black and white comics.

**Byrne Seminar | Paper-Based Electronics**

**September 2015 – November 2015**

- Collaborated with other students to create a robot dog out of cardboard and an Arduino UNO which moved its tail and played a melody after someone pressed a touchpad made out of metallized paper located on the back of the robot.

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## Extracurriculars

**MESA(Mechanical Engineering Student Association) | Webmaster**

**September 2016 – Present**

- Assist in event planning and help to promote organization across campus through events.  
- Help in maintaining MESA website.