# Eric Tola

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## OBJECTIVE

Striving to gain an engineering position in a world renowned corporation.

## EDUCATION

**State University of New York, Stony Brook University**
Bachelors of Engineering (B.E.) - Mechanical Engineering
Masters Degree (M.S.) - Mechanical Engineering (5 - Year Program) **Expected Graduation Date** - *Dec 2017*
**Overall GPA**: 3.26/4.00 **Major GPA**: 3.44/4.00

## TECHNICAL SKILLS

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|---|---|
| **Programming Languages** | MATLAB, C++, Python, LabVIEW, Arduino C, CNC G-Code/M-Code |
| **CAD Programs** | Solidworks, AutoCAD, Simens NX Unigraphics, Creo Parametric, Pro E |
| **Machining** | End Mills, Lathes, Welding, Band Saws, CNC, WEDM, Rapid Prototyping/3D Printing, Laser Cutters. |
| **Computer Skills** | Linux/Unix, Robot Operating System (ROS), Embedded Systems, Microsoft Windows, Microsoft Office, Latex, Git. |

## WORK EXPERIENCE

**iRobot** Jan 2017 - Aug 2017
*System Test Engineering Intern* *Bedford, Massachusetts*
· Developed, in LabVIEW, the controls and GUI for a Traction and Stiction Fixture used to debug mobility issues on robots.
· Designed a hand-held fine debris fixture used for cleaning and claims testing on robots.
· Managed the Rapid Prototyping Lab while the lab director was out. Performed necessary maintenance on the Stratasys Object and FDM machines.

**Cummins** May 2016 - August 2016
*Vehicle Modeling Intern* *Columbus, Indiana*
· Programmatically developed a Graphical User Interface (GUI) in MATLAB capable of performing post processing on vehicle simulation data. It was released as part of the simulation package at the end of my internship.
· Conducted batch variable sensitivity testing on the vehicle simulation and observed the behavior on the clutch model. Outlined how to tune vehicle simulation clutch model based on data collected from testing.

**National Grid** May 2015 - August 2015
*Mechanical Engineering Intern* *Brooklyn, New York*
· Designed gas main routes using techniques learned from mentoring engineers.
· Worked on project sites to walk-out job sites to determine a gas main route.
· Wrote Standard Operating Procedures (SOP) for several gas piping integrity and reinforcement projects.

## RESEARCH EXPERIENCE

**Underactuated Robotic Hand for In-Hand Manipulation** January 2015 - Present
*Graduate Researcher* *Professor: Nilanjan Chakraborty*
Video Github
· Mechanical, electrical and software development of a tendon driven underactuated robotic hand.
· Analysis of the robotic hand using manipulator kinematics and dynamics.
· Researching control methods to allow for in-hand manipulation of grasped objects.

**Internal Combustion Engine Research** January 2016 - May 2016
*Undergraduate Researcher* *Professor: Benjamin Lawler*
· Programming in MATLAB to apply numerical methods to engine testing data.
· Built, installed and programmed a LabVIEW data acquisition system for a Cooperative Fuel Research (CFR) engine.

## LEADERSHIP EXPERIENCE

**Institute for Information and Communications Technology Promotion (IITP)** August 2015 - December 2015
*IITP Student Assistant* *Stony Brook University*
Video
· Worked with two exchange students to develop design grasping algorithms for the research manipulator robot.
· Programming done in python in an Linux environment using ROS to communicate with and control the robot.
· Implemented computer vision methods using OpenCV to determine graspable objects and their positions.