

# MICHAEL A. BICK

350 Ferst Drive  
329889 Georgia Tech Station  
Atlanta, GA 30332-1295  
US Citizen

(747)-227-6723  
michael.bick@gatech.edu

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## EDUCATION

AUG 2016 - PRESENT **Mechanical Engineering** | GPA 3.58/4.0  
**Georgia Institute of Technology**, Atlanta, GA  
Dean's List  
2<sup>nd</sup> Year Junior, Expected Graduation June 2020

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## ACADEMIC PROJECTS

AUG 2016-PRESENT

### GT Motorsports | POWERTRAIN TEAM MEMBER

Simulating engine dynamics with the eventual goal of increasing efficiency and low-end torque by lowering power-band. Designing and manufacturing improved camshaft to match optimal lift profile.

AUG 2016-PRESENT

### RoboJackets | TEAM MEMBER

Lead design of a 3lb combat robot to compete in the Motorama event, including CAD, chassis analysis, and weapon optimization. Manufacturing robotic mechanism components using precision machinery including CNC mills and lathes.

AUG 2011-JUN 2016

### MilkenKnights FRC Team | TEAM CAPTAIN

Managed the 6-week design and construction of a robot, including rapid prototyping, CAD, manufacturing, and control dynamics. Designed transmissions, gearboxes, chassis, and complex linkages in Solidworks. Implemented position PID, velocity PID, vision tracking, motion profiles, and path following. Trained students in CAD and operating precision machinery including a mill, lathe, and CNC router. Established sponsorship ties with local manufacturing businesses.

SEPT 2014-JUN 2016

### ASCE Bridge Building Team | TEAM CAPTAIN

Lead design, analysis, simulation, and construction of a three foot, one pound popsicle stick bridge that withstood over 950 pounds of force.

SEPT 2014-JUN 2015

### Conrad Spirit of Innovation | PROGRAMMING/ELECTRICAL LEAD

Designed, wired, and programmed LIDAR tracking system for a belt than warned the visually-impaired of threatening obstacles.

JUN 2012-JUN 2014

### Edge Systems Design | MECHANICAL ENGINEER

Designed base frame and linear motion system for an affordable CNC router targeted at the hobby market. Helped manage funding and operation of a startup.

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## TECHNICAL SKILLS

**CAD** Solidworks(7 years), Autodesk Inventor(8 years), Top-down Design, Parametric Design, Surface Modeling

**Manufacturing** Haas CNC, Manual Mill, Manual Lathe, Laser Cutter, Waterjet, 3D Printer

**Programming** MatLab, Java, HTML, CSS, SASS, Android, Python, L<sup>A</sup>T<sub>E</sub>X

**Microcontrollers** Arduino, NI myRio/roboRio(LabView)

**Software** Vim, Adobe Illustrator, Word, Excel

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## AWARDS & HONORS

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NOV 2017	7 <sup>th</sup> /60	Georgia Tech ME2110 Design Competition
APR 2016	2 <sup>nd</sup> /42	FIRST Robotics Orange County Regional
MAR 2015	3 <sup>rd</sup> /41	FIRST Robotics Ventura Regional
MAR 2015	3 <sup>rd</sup> /53	FIRST Robotics Utah Regional
OCT 2014	International	Conrad Spirit of Innovation Semi-Finalist
MAR 2013	1 <sup>st</sup> /65	FIRST Robotics Los Angeles Regional