

# MICHAEL A. BICK

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US Citizen

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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

SOFTWARE:    Solidworks, Autodesk Inventor, Adobe Illustrator, Vim, Word, Excel  
LANGUAGES:    MatLab, Java, Arduino, HTML, CSS, SASS, Android, Python, L<sup>A</sup>T<sub>E</sub>X  
MACHINES:    Haas CNC, Manual Mill, Manual Lathe, Laser Cutter, Waterjet

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## AWARDS & HONORS

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