

MICHAEL A. BICK

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EDUCATION

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

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 including CAD, chassis analysis, and weapon optimization
- Manufactured robotic components using precision machinery including CNC mills, lathes, and waterjets
- Created autonomous path planning and motion profile algorithm using Matlab

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
- Created top-down Solidworks models of transmissions, gearboxes, and complex linkages
- 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

SEPT 2014- JUN 2016

ASCE Bridge Building Team| TEAM CAPTAIN

- Constructed a three foot, one pound popsicle stick bridge that withstood over 950 pounds of force
- Used FEA and deformable body analysis to validate design

SEPT 2014- JUN 2015

Conrad Spirit of Innovation| PROGRAMMING/ELECTRICAL LEAD

- Designed for a belt than warned the visually-impaired of threatening obstacles
- Wired and programmed a LIDAR tracking system using an Arduino microcontroller

TECHNICAL SKILLS

CAD Solidworks(7 years), Autodesk Inventor(8 years), Top-down Design, Parametric Design, Surface Modeling, 2D Engineering Drawings
Manufacturing Haas CNC, Manual Mill, Manual Lathe, Laser Cutter, Waterjet, 3D Printer
Programming MatLab, Java, Python, HTML, CSS, SASS, Android, L^AT_EX
Microcontrollers Arduino, NI myRio/roboRio(LabView)
Software Vim, Adobe Illustrator, Word, Excel

AWARDS & HONORS

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