Daniel Gu

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Education

Bergen County Academies — *Hackensack, NJ*

Academy for Engineering Design and Technology — *June 2016*

University of Michigan, College of Engineering — *Ann Arbor, MI*

B.S.E in Aerospace Engineering | 3.248 — *Expected April 2020*

- Intro to Aerospace Engineering, Intro to Computers and Programming, Multivariable Calculus
- Intro to Electronic Circuits, Differential Equations, Dynamics & Vibrations (Fall 2017)

Work and Project Experience

Michigan eXploration Laboratory (MXL); *Research Assistant* — *Jan 2017 – Present*

- Involved in the development and assembly of the Tandem Beacon Experiment (TBEx), a pair of 3U CubeSATs
- Wrote electronic checkouts for flight and debugged existing engineering development processes
- Populated flight-level PCBs and performed electronic checkouts
- Coordinating launch logistics for ballooning subteam as part of NASA's 2017 Eclipse Ballooning Project

Recon Industrial Controls Corporation; *Engineering Intern* — *Sept 2015 – June 2016*

- Company developing/manufacturing electronic instrumentation, control hardware, software for industrial use
- Tested methods for a wireless serial link to the LabRecon board
- Ported LabRecon software to Linux using the WINE environment

City College of New York, Grove School of Engineering; *Teacher's Assistant* — *June 2015 – Aug 2015*

- Instructed and planned the curriculum for an intensive 6-week robotics class
- Covered basic Python, Unix command line, circuit theory, mechanics, and gen electronics to make a sumo robot

Locating and Identifying Viable Asteroids (NASA ICED) — *Nov 2013 – Nov 2014*

- Prototyped a device with Arduino, custom-made PCB to measure the magnetic permeability of an asteroid and estimate amount of water gained from harvest
- Worked in collaboration with Kokutai-ji High School, sponsored by the Japanese Ministry of Education
- Presented at the Super Science HS Convention, at the Hiroshima International Conference Hall

Introduction to Aerospace Engineering (Remote Controlled Blimp) — *Jan 2017 – May 2017*

- Designed and built an Arduino based RC blimp with a team half the size of competitors
- Focused on structural, controls, and wiring design and manufacture
- Delivered oral and written reports on project status throughout duration of project

Leadership Experience

hackBCA: *Chief of Staff* — *2014 – 2016*

- Board member for the third iteration of hackBCA, one of the largest high school hackathons in the nation
- Coordinated of staffing and day-of logistics

Junior State of America (JSA): *Director of Fundraising* — *2012 – 2015*

- Reduced overnight convention costs by over $100 per attendee, ended 2014 with over $3000
- 2014 Junior State of America National Civic Impact Award

Extracurriculars

Michigan Men's Glee Club; Bass I — *Sept 2016 – Present*

American Institute of Aeronautics and Astronautics (AIAA) — *Sept 2016 – Present*

Skills

Communication: Fluent in Mandarin; Technical Writing

Software: Altium Designer; MATLAB, Mathematica, C/C++, LaTeX; Autodesk Inventor/AutoCAD; Unix command line

Manufacturing: 3D Printing, CNC Milling, Waterjet Cutting, Laser Cutting

Last Updated: 8/7/2017