Devin P. Cody

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EDUCATION

California Institute of Technology **Pasadena, CA**
Masters Degree in Electrical Engineering Expected Graduation: December 2018

Yale University **New Haven, CT**
Double Major in Electrical Engineering and Applied Physics Class of 2017
- Cumulative GPA: 3.83 (Cum laude)
- Senior Theses
  - Electrical Engineering:"Design and Construction of Frequency-Modulated Continuous Wave Radar"
  - Applied Physics:"Lumped-Element Analysis for Planar Multilayer Circuit Quantum Electrodynamics"
- Coursework: Data Structures and Programming, Microwave Design and Techniques, Solid State Physics, Mechatronics, Systems and Control, Statistical Mechanics and Thermodynamics, Quantum Mechanics

EXPERIENCE

California Institute of Technology - Microwave Research Group **Pasadena, CA**
Student Researcher; Advisers: Sander Weinreb, PhD and Gregg Hallinan, PhD *2017 - Present*
- Designing a next-generation analog receiver board for the Long-Wavelength Array (LWA)
- Objective is to reduce cross-talk by 60dB across all 512 signal channels

Yale University - Quantronics Laboratory **New Haven, CT**
Student Researcher; Adviser: Michel H. Devoret, PhD *2015 - Present*
- Developed code to perturbatively estimate non-linear parameters of quantum circuits through discretization of 3D qubit structures into linear circuit models
- Code accelerates analysis of RF superconducting qubit structures by a factor of 1000 over ANSYS HFSS

Space Exploration Technologies (SpaceX) **Hawthorne, CA**
Electromagnetic Interference and Avionics Survivability Intern *Summer 2016*
- Analyzed flight-critical systems on the Crew Dragon vehicle for susceptibility to electrical discharge
- Simulated vehicles in ANSYS Maxwell using flight-like conditions to find lighting attachment points
- Designed and built EMI testing apparatus and automated code for measuring shielding transfer impedance
- Observed and assisted with implementation of military standardized EMC testing (MIL-STD-461)

Yale Undergraduate Aerospace Association **New Haven, CT**
Co-President, Senior Adviser, Project Leader *2013 - 2017*
- Developed club grand strategy and worked with administration and Executive Board to implement it
- Orchestrated club activities, weekly meetings, and logistics across all 7 teams (6-15 people each, 70 total)
- Managed a 16-person team to build a motorized, 8 foot radio telescope to map the Milky Way remotely
- Constructed and launched a rocket equipped with an experimental payload to observe the effects of general and special relativity. Payload won second place at Intercollegiate Rocket Engineering Competition

NASA Ames Research Center **Mountain View, CA**
Research Associate; Adviser: K. Krishnakumar, PhD *Summer 2015*
- Implemented and tuned state-space algorithms to counteract motor-failures in unmanned aerial systems
- Led the hardware team in development of multi-rotor platform for validation of motor failure algorithms

HONORS AND AWARDS

- Applied Physics Department Prize, Yale
- Tau Beta Pi Engineering Honor Society, Yale
- George J. Schulz Fellowship, Yale
- Research Grants: Mellon Research Grant, Yale; James A. Helzer Grant, Yale
- Project Grants: NASA Space Grant Consortium; Society of Amateur Radio Astronomers
- Eagle Scout, Boy Scouts of America Troop 48, Doylestown, PA

TECHNICAL SKILLS

- Programming languages: C, C++, Python, MATLAB, Mathematica, and LaTeX
- Software: HFSS, CST, Altium, Microwave Office, Cadence, SolidWorks, Simulink, EAGLE, and git/github
- Miscellaneous: FPGA prototyping through design of a microcontroller; manufacturing techniques involving 3D printers, laser cutters, lathes, welding