Douglas Hutchings

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EDUCATION

University of California, Berkeley *Graduated: December 2015*
Bachelor of Science in Mechanical Engineering
Courses

Feedback and Control Systems	Mechatronic Design Laboratory
Artificial Intelligence	Introduction to Robotics
Signals and Systems	Design of Microprocessor Based Systems
Organizational Behavior	Introduction to Product Development

Computer Tools: Solidworks, Creo Elements, Windchill, Matlab, Simulink, Git, Eagle, ROS
(Programming) Languages: C, Java, C#, Python, Mathematica, JavaScript (Basic), Japanese (Basic)

PROFESSIONAL EXPERIENCE

Electronic Technician, E.E.C.S. Department, University of California, Berkeley *Jan 2016 – Aug 2016*
- Delivered logistical and technical support two upper division Robotics courses of thirty students each.
- Developed & deployed telemetry, control, and electrical systems to improve student learning in the classes.
- Planned & Managed re-organization of several labs to increase teaching capacity.
- Provided A/V and recording support for webcasting lectures and special events.

Hardware Engineering Intern, Google Inc. *Summer 2013*
- Developed a robotic device to route network cabling bundles between devices in Data Centers (DCs).
- Defined a way forward for possible comprehensive and quick deployment of the system in DCs.
- Designed user-friendly sheet metal packaging for electronics to increase hard drive erasure throughput.

RESEARCH

Research Assistant, Biomimetic Millisystems Laboratory, UC Berkeley *Summer 2012, Fall 2014 – 2015*
- Developed a robotic control system and production method for ~30 gram crawler robots.
- Characterized vertical wall climbing capabilities of the crawler robots.
- Developed new compact motor controller to improve jumping capabilities of the robots.

Intern, Carnegie Mellon University – Silicon Valley *Summer 2011*
- Researched consumable free, maintenance free, and sustainable methods of cleaning Photovoltaic cells.
- Developed an easily deployable autonomous system to do the same for domestic applications.
- Set up and maintained an on-site prototyping shop consisting of basic machine and electrical development tools for use by the entire CMU-SV staff. Performed training and certification for those tools.

ACTIVITIES

Pioneers in Engineering (PiE) *Fall 2011 – Present*
PiE is a UC Berkeley student organization that runs STEM outreach programs for local East Bay schools.
- **Foundation Treasurer** *February 2015 – Present*
  - Led the Financial aspect of PiE's Foundation Project, a successful effort to establish PiE as a 501(c)(3).
  - Established financial procedures, filed taxes & IRS forms, and set up donation pathways.
  - Working to improve revenue stream in order to meet goal of establishing a reserve fund.
- **Robotics Competition Program Director** *Summer 2013 – Spring 2014*
  - Led the PiE Robotics Competition, an 8-week long event for 20 teams throughout the east bay, involving 300 High School Students, 100 College Students, and a budget of approximately $35,000.
  - Responsibilities included: fundraising, design and manufacture of custom robotics kits, recruitment and training of college mentors, and planning and execution of major events, while increasing staff retention.