

Kunal Marwaha

*Looking for projects in open information.
Professional software engineer.
I learn quickly.*

kunalmarwaha.com | marwahaha@berkeley.edu

EXPERIENCE

Senior Software Engineer | *Pandora Media* | Oakland, CA | Feb 2018 - present

- Built tools to import, deduplicate, and measure new music delivered to Pandora (Java, SQL)
- Involved with matrix-factorization-based approaches to cluster content by attribution

Forward Deployed Engineer | *Palantir Technologies* | Washington, DC | August 2016 - Jan 2018

- Built data entry and data analysis tools (React, TypeScript, Redux)
- Various clients in the US Government space

Research Assistant | *Birgitta Whaley (UC Berkeley)* | Berkeley, CA | Jan-Aug 2015, Jan-May 2016

- Independent project: bilinear control theory applied to nonlinear spectroscopy ([paper](#))
- Independent project: compressive sensing applied to quantum information ([paper](#))

Teaching Assistant | *UC Berkeley EECS* | Berkeley, CA | Summer 2015

- Taught a popular, daily class for “Discrete Mathematics and Probability Theory” (CS70)
- Wrote discussion worksheets, homeworks, and additional logic problems

SKILLS

Programming: JavaScript/React/TypeScript, Python/Django, Java/Spring, SQL, Scheme, LabView

Simulations: Jupyter notebooks, SolidWorks/AutoCAD, Multisim/HSPICE, Mathematica

Electrical Lab: Oscilloscope, Multimeter, Function Generator, Parameter Analyzer

Building: Power tools (saws, drills), Soldering (solder & wick, reflow oven, SMT & PTH), 3D Printing

Chemical Lab: Gas Chromatography, Atomic Spectroscopy (AAS, MP-AES), Rotovap, Titration

Business: Grant writing, Engineering project management, Nonprofit 501(c)(3) Incorporation

EDUCATION

Bachelors of Science in Engineering Physics (May 2016)

Bachelors of Science in Electrical Engineering & Computer Science (May 2016)

University of California - Berkeley (GPA: 3.73)

Math: Probability, Linear/Abstract Algebra, Real/Complex Analysis, Vector Calculus, PDEs

Physics: Mechanics (Statistical, Quantum, Classical, Continuum), Thermodynamics, E&M, MHD

Electrical Engineering: Microelectronic Devices, Circuits, Signal Theory, Feedback Control

Computer Science: SICP, Data Structures, Computer Architecture, Algorithms, AI, Data Science

SEMINAR TALKS AT UC BERKELEY

Kunal Marwaha, “Applications of Bilinear Control Theory in Nonlinear Spectroscopy”

Numerical Methods in Radiation Transport: Final Project May 10, 2016 ([slides](#))

Whaley Research Group

May 27, 2015 *updated* May 18, 2016

Kunal Marwaha, “Quantum Applications of an Efficient Solution to Compressive Phase Retrieval”

Society of Physics Students Undergraduate Talk

February 17, 2015 ([slides](#))

Whaley Research Group

January 28, 2015

AFFILIATIONS

President, Society of Engineering Sciences (departmental club)

2014 and 2016

Instructor, [Software Carpentry](#) (non-profit for introductory programming)

2015-present

Carillonist, UC Berkeley Carillon (bell tower musical instrument)

2012-present

Eagle Scout, Boy Scouts of America

2011

References available upon request.