Kevin Corcoran

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EDUCATION

University of California, Santa Cruz
Masters of Science, Applied Mathematics

University of California, Berkeley
Bachelor of Arts, Applied Mathematics

Butte College
Associates of Arts, Mathematics

SKILLS

Programming: Python, MATLAB, Fortran, Julia, C, C++, Java
Proficient: LaTeX, Git, Linux
Familiar: Arduino, Raspberry Pi, Pyglet, Fusion 360

WORK EXPERIENCE

Teaching Assistant — University of California, Santa Cruz
Linear Algebra, Differential Equations, Calculus, Programming in Python — *Oct 2020 - Dec 2022*
- Carefully planned and facilitated weekly discussion sections. Emphasized conceptual understanding through carefully chosen practice problems, held office hours, and graded quizzes and exams.

Tutor — SY Academy
Linear Algebra, Differential Equations, Calculus, Computer Science (C++ and Java) — *Jan 2020 - Aug 2020*
- Tutored small weekly groups, prepared short lectures, helped with homework, and provided additional practice for Laney College and Berkeley City College students.

Homework Reader — University of California, Berkeley
Advanced Linear Algebra, Numerical Analysis — *May 2018 - Aug 2019*
- Graded weekly homework for two of UC Berkeley's upper division, proved based math courses.

STEM Instructor — United Technologies for Kids (UTK)
3D Modeling, Arduino Basics — *Jun 2019 - Jul 2019*
- Taught the basics of Arduino and 3D modeling with Fusion 360 to High School age kids in Chincha, Peru. Developed instructional material, and Arduino code, for a 3D printed electric motor.

Academic Intern — University of California, Berkeley
Structure and Interpretation of Computer Programs — *Jan 2018 - May 2018*
- Assisted students in UC Berkeley's introductory programing course (Structure and Interpretation of Computer Programs) at weekly sessions with homework, projects, and lab assignments.

PROJECTS

Trash Sorting Computer Game | *GitHub*
- Made a Tetris inspired sorting game as a fun instructional tool for a Waste Management role held in cooperative housing

Food Computer | *GitHub*
- Build a version of MIT's open sourced food computer made out of cardboard and hydroponically grew a tomato plant

Physics Project | *GitHub*
- Wrote a program in C++ to efficiently find all equivalent resistances, and output the circuit, given some number of resistors of equal resistance

TECHNICAL COURSEWORK

Graduate Coursework: Numerical Solutions to Differential Equations, Numerical Linear Algebra, Applied Partial Differential Equations, Applied Dynamic Systems, High Performance Computing, Computational Fluid Dynamics, Introduction to Fluid Dynamics, Advanced Fluid Dynamics

Undergraduate coursework: Advanced Linear Algebra, Numerical Analysis, Real Analysis, Partial Differential Equations, Fourier Analysis, Optimization, Data Structures, Designing Information Systems and Devices, Machine Learning, Electromagnetism and Optics, Quantum Physics, Quantum Computing