Matthew Prescott Dull

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EDUCATION

University of California, Berkeley, CA **May 2023**
Bachelor of Science in Engineering Math and Statistics with Computer Science emphasis GPA: 3.6/4.0

Relevant Coursework: CS 61A: Structure & Interpretation of Computer Programs (**Python, SQL**), **CS 61B:** Data Structures (**Java**), **CS 61C:** Great Ideas of Computer Architecture (**Machine Structures, C, RISC-V**), **CS 70:** Discrete Math and Probability Theory (**Python**), **CS 170:** Efficient Algorithms & Intractable Problems (**Python**), **CS 188:** Artificial Intelligence (**Python**), **CS 161:** Computer Security (**C, Go**), **Stat 134 & 135:** Concepts of Probability/Concepts of Statistics (**R, Python**), **Math 128A:** Numerical Analysis (**MATLAB, Python**), **Data 100C:** Principles and Techniques of Data Science (**Python, MATLAB, SQL**)

SKILLS

Languages: Advanced: Python, C, Java, Go, R. Proficient: C++, SQL, MATLAB, Swift, Scheme, RISC-V, ARM, x86 architectures
Libraries: NumPy, SciPy, Tidyverse, Matplotlib, OMP, SIMD, DataTable, Pandas, Seaborn, Scikit-learn

HIGHLIGHTED PROJECTS & EXPERIENCE

Cateni, Inc. **May - Aug 2022**
Software Engineering Intern 2nd-Year Redondo Beach, CA

- Created Demo Projects in C/Python in Code Composer Studio to test components on TI TMS570+ microcontrollers: Toggling LEDs, Uart sensor output, CAN Rx/Tx between devices on satellite board, interrupts, thermal sensors, etc.
- Used Halcogen Software to configure and set up project files, drivers, peripherals, interrupts, clocks, and other Hercules microcontroller parameters to correctly prepare devices for application development.
- Implemented and onboarded Novos RTOS software onto Cobham UT32MO500 microcontroller to continuously process and manage large amounts of processes coming to and from the device.

Software Engineering Intern 1st-Year **June - Aug 2021**

- Programmed in Python and C on Raspberry Pi 4s microcontrollers with various attachment mounts to act as an external device to send and receive sensor data to/from Cobham UT32MO500 microcontroller for simulation applications.
- Debugged source files and assembly code (x86 architecture), along with analyzing product specs and documentation to seamlessly integrate device coordination for an array of application development tasks: transmitting and receiving messages, watchdog timer tests, interrupts, gpio tests, etc.

Paddle, LLC: The Future of Music **Feb 2020 - Present**
Co-Founder and Chief Operating Officer Manhattan Beach, CA

- Co-founded and developed innovative social media music application, *Paddle Music*, along with raising more than $25,000 in Kickstarter campaign over two months to fully fund beta app development and marketing.
- Formed limited partnership company to market and engage investors to expand app market shares. The app is currently available in the IOS App Store and we are planning the full app launch in 2024.
- Managed and programmed codebase on GitHub primarily in Swift, Java, HTML and working with Spotify API, along with organizing workflow and scheduling with our other app developers.

Gitlet Version Control System **Jan 2021 – Aug 2021**

- Developed a version-control system that mimics the functionality of the Git version-control system including the following: Commits, Checking Out, Log, Branching, and Merging. Implemented using the industry-standard object-oriented programming model in Java, in order to gain experience with large, functional software projects.

LEADERSHIP & EXTRACURRICULAR ACTIVITIES

UC Berkeley Engineering Mentorship Program **September 2020 – May 2023**
Undergraduate Student Mentor (3 Years)

- Provided support and guidance to new engineering students through one-on-one and group meetings to explain coursework and class schedules, adjusting to campus life, and navigating engineering campus resources.
- Guided mentees with job/internship search support, peer reviews, and practice interviews. Additionally, provided academic support and tutoring for mentees taking lower division engineering and computer science courses.

CS 70 (Discrete Math and Probability Theory) Course AI and Course Reader **January 2022 – May 2023**
EECS Department Undergraduate Student Instructor

- Developed the problems and grading rubrics for assignments, along with grading homework and exams for 800+ students. Additionally, held office hour sessions and led homework parties for students in need of support with their coursework (Graphs, RSA algorithm, Countability and Computability, Regression, Distributions, etc.).
- Taught students one-on-one and in groups at weekly discussion sections of 40+ students to help them master course concepts and dig deeper into questions about the material from lecture.

Additional: Eagle Scout; Seal of Multiliteracy – Spanish; Cal Ski and Snowboard Club; Cal Volleyball Intramural Captain