# Frances K. McQuarrie

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**Education:** **Time Period:**

University of California at Berkeley 2016-Present
*Bachelor of Arts in Statistics, minor in Computer Science*
*GPA: 3.77*

**Experience:**

*Research Summer Intern at Adobe Systems* Summer 2018
- Implemented a Ruby on Rails web app to easily access and submit machine learning jobs to Adobe Research's GPU cluster (see below in Projects).

*Business Operations Intern at Tribe Dynamics* Summer 2017
- Tribe Dynamics uses data science techniques to track social media "influencers" and advise companies on the new field of influencer marketing.
- Wrote and developed a Python program that returned any "home" location mentioned in an Instagram profile description.

*STAT/CS C8 "Foundations of Data Science" Undergraduate Student Instructor (UGSI)* Fall 2017 - Present
- Prepare mini concept lectures of material relevant to the current lab.
- Conduct office hours.
- Assist professors in assignment and lab development.

**Projects:**

*ResearchHub: Compute Cluster Portal* Summer 2018
- Ruby on Rails web app to provide a user-friendly interface to access, submit, and monitor machine learning jobs to the compute cluster (deployed internally within Adobe).
- Developed Ruby scripts to automate the creation and submission of jobs to the HTCondor scheduler, which would launch Docker containers on the cluster machines, allowing users to create a ssh session and test their models on high performance GPU's.

*Gitlet: A mini version-control system* Fall 2017
- Designed and implemented my own version control system.
- Imitated the Git version control system, with Commit objects that contained a snapshot of files at the time of the commit, in order to "save" current work.

*Coding Bootcamps Research* Fall 2018
- Used Python and the BeautifulSoup package to parse the "Codingbootcamp" tag on Medium.com and collected the author name, biography, article title, publisher, publish date, article text, number of claps.
- Conducted an analysis on number of bootcamps associated, article publishers, number of claps, and gender breakdowns of publishing patterns.

*DBMS: Simple Relational Database Management System* Fall 2017
- Implemented a program to store tables of data, and extracted information from the tables using a simple query language with commands such as *select, print,* and *insert*.

*Two-Cycle Pipelined RISCV CPU* Spring 2018
- Designed and built a two-cycle pipelined CPU to execute RISCV assembly language Instructions.

*Cointoss: A minimal R package* Spring 2018
- Developed a basic R package to simulate tossing a coin.
- Included package tests using *testthat* software and vignettes to demonstrate syntax.

**Awards and Honors:**

*2018 Outstanding Graduate Student Instructor Award* Spring 2018
- Granted to graduate or undergraduate student instructors nominated and selected by the department for their exceptional teaching skills.

**Skills:**

- **Proficient:** Python, R, LaTeX, pandas, SQL, numpy, Jupyter Notebooks
- **Familiar:** Ruby/Ruby on Rails, C, Java, RISC-V