

Kevin J. Zhou

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Education

- **UC Berkeley - Computer Science, Data Science, Applied Mathematics [GPA: 3.82]** **May 2023**
 - **Relevant Coursework:** Data Structures, Databases, Operating Systems, Computer Security, Algorithms, Artificial Intelligence, Machine Structures, Information Systems, Discrete Math, Probability, Linear Algebra

Technical Skills

- **Programming Languages:** Java, Python, C/C++, RISC-V, x86, Scheme, MatLab, GoLang, HTML, CSS
- **Frameworks/Tools:** SQL, Pandas, Numpy, Git, PintOS, Seaborn, Matplotlib, MongoDB, Tensorflow

Experience

- **Consultant – DataStory & Experian** **Jan 2022 – May 2022**
 - Worked with executive members at Experian to automate query generation and provide business metric data visualizations, with emphasis on utilization rate and delinquency rate, for clientele
- **Undergraduate Student Instructor – UC Berkeley EECS Department** **June 2021 – Aug 2021**
 - Led discussions, office hours, homework party, and exam review sessions for a class of 600+ students
 - Taught concepts such as graph theory, RSA cryptography, continuous probability, and markov chains
- **Webmaster (see badminton.berkeley.edu) – Cal Badminton** **June 2019 – May 2020**
 - Implemented HTML and CSS for the website's landing page, subpages, mobile interface, and new features from concept to deployment to attract new members
- **Competitive Math Tutor – self-employed** **Mar 2019 – Apr 2022**
 - Taught private lessons for olympiad level algebra, geometry, number theory, and combinatorics problems through both in-person and online learning formats
 - Ran my own business, managed finances, tracked hours, and promoted to the community
- **Programming Internship – BorderX Lab** **June 2018 – Aug 2018**
 - Developed a trending model to rank popular search queries for products on the Beyond app
 - Wrote algorithm using rolling z-scores, sliding window, sorting by date/time stamp, and csv readers
 - Completed projects involving data processing and management using log files, SQL, and Java
- **Bioinformatics Internship with Dr. Okyaz Eminaga – Stanford University** **Feb 2018 – Jan 2019**
 - Developed a deep-learning based detection tool that segments and analyzes histology images to diagnose prostate cancer with 99% accuracy using Java
 - Programmed extensions for the QuPath software and Keras deep learning library
 - Serialized image data, engineered heatmaps, integrated and trained deep learning models in Java

Projects

- **Encrypted File Sharing System (GoLang)**
 - Designed and programmed a secured file sharing system where authenticated users can create and modify persistent files, as well as invite and revoke others users from having access
 - System implements symmetric key encryption, RSA encryption, HMAC, and is secure under IND-CPA
- **B+ Tree Database (Java)**
 - Implemented a B+ tree database that supports record lookups, insertion, deletion, and bulk loading
- **Digit Classification with Neural Networks (Python)**
 - Built a multi-layered neural network using perceptrons and rectified linear activation functions (ReLU), trained with cross-entropy loss, to achieve 98% validation accuracy on a dataset of handwritten digits
- **Gitlet (Java)**
 - Designed and programmed a version-control system, similar to Git, that supports saving directories of files, restoring previous versions, viewing backup logs, branches, and merging

Honors and Awards

- **Upsilon Pi Epsilon: Nu Chapter** **Aug 2020**
 - UC Berkeley's Computer Science Honor Society, top 1/3 of CS majors are invited
- **4x AIME Qualifier (2014, 2017, 2018, 2019)**
 - 2019 AMC 12A Perfect Score (1 of 23 in the nation)
- **USACO Platinum Division**
 - Reached highest division of the U.S. algorithmic programming olympiad