

Jun Zhou

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Project Portfolio: <https://jzhou3087.github.io>

EDUCATION

Electrical Engineering & Computer Science, B.S.

May 2019

University of California, Berkeley

GPA: 3.23

- Regents' & Chancellor's Scholar (top 1.5% of admitted class)

RELEVANT COURSEWORK

Data Structures, Computer Architecture and Machine Structures, Efficient Algorithms and Intractable Problems, Multivariable Calculus, Linear Algebra & Differential Equations, Discrete Mathematics & Probability, Designing Information Devices & Systems, Internet Protocols and Architecture, Computer Security, Data Principles and Techniques, Machine Learning DeCal

PROJECTS

BearMaps (Java)

- Designed routing by implementing A* algorithm with distance heuristic to respond to queries for a path between two nodes
- Modeled map rastering by implementing quad-tree representation with JPEG images

Secure File Store (Python, PyCrypto)

- Designed IND-CPA security in download, upload, and sharing with cryptographic methods: El Gamal asymmetric encryption, RSA signatures, MAC, and SHA-256
- Optimized efficient updates for >> GB files with Merkle trees

iOS Music Streaming (PHP, Swift 4, MySQL)

- Service that allows users to stream music from a MySQL instance hosted on SiteGround
- Concurrently integrating SoundScape (open-source web-scraper) to showcase refrains of musical pieces under Creative Commons license

EXPERIENCE

Kravin Inc. – Software Engineering Intern

- Contributed code that executed on the AWS and Parse platforms. Integrated Lambda functions on AWS with the chat services of Layer and digital signatures of Parse.
- Data mining on local Berkeley hubs using digital instances of BeautifulSoup. Clustered relevant Twitter and Facebook metadata to identify food/social cliques.
- Configured Amazon RDS instance (database) to use cache warming. On shutdown the buffer is saved and on startup the buffer is loaded again, preventing unnecessary request timeouts.
- Redesigned and optimized search algorithm to use user profile information to improve search results.

SKILLS

Languages/Frameworks: Python, C, Java, Swift, SQL

Web: JavaScript, HTML5, CSS3

Software: Git, LaTeX, Xcode

APIs: Twitter, BeautifulSoup, Pandas, Matplotlib, Seaborn, numpy

EXTRACURRICULARS

Asian American Association – Internal Relations Chair

- Integrated CSVs using Google Drive API with Pandas for EDA
- Built custom API using BeautifulSoup to automate payment history and metrics for membership