Jonathan Fung

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Education

University of California, Berkeley — 5/2020 (exp)

- B.S. Electrical Engineering and Computer Sciences
- **Overall GPA: 3.9/4.0** (Dean's Honors List)
- **Regents and Chancellors Scholarship Recipient** – Top 2% of Incoming Class
- **HKN EECS Honor Society** – Top 25% of Junior Class
- Relevant CS Coursework: Machine Learning, Operating Systems, Compilers, Security, Algorithms, Databases, Computer Architecture, Discrete Math and Probability Theory, Computational Photography
- Relevant EE Coursework: Convex Optimization, Digital Signal Processing, Signals and Systems
- Graduate-level classes: Linear System Theory, Principles of Magnetic Resonance Imaging

Experience

Pinterest – *Software Engineering Intern (Infrastructure)* — 5/19 - present

- On the Visibility team, working with logging and metrics. Built metrics reporting pipeline to support accurate, t-digest based **by-host aggregation methods,** yielding **99% reduction in metrics storage.**
- **Reduced infrastructure costs by $1.2 Million per year.** Processing **8 million metrics per second**.
- Featured on the Pinterest Engineering Medium blog. post: jonfung.me/mediumpost

Kleiner Perkins Fellows Program – *Engineering Fellow* — 5/19 - present

- One of 50 selected to participate in the KP fellowship program in technology and entrepreneurship

Computational Imaging Lab – *Undergraduate Researcher under Laura Waller* — 8/18 - present

- Working with optimization models and optics to perform lensless imaging, allowing for the reconstruction of 3-D images from a single shot with the aid of a diffuser.

Stripe – *Software Engineering Intern (Dev Tools)* — 5/18 - 8/18

- On the **Developer Productivity** team. **Implemented Ruby enums** in Stripe's code for the Ruby Typechecker project (Sorbet). Code refactored ~2,000 modules to a new enum format.
- **Integrated VSCode IDE** with Sorbet. Some features include Jump-to-Definition, Type-on-Hover.

UC Berkeley EECS Department – *CS189/289A (Machine Learning) Course Staff* — 1/19 - 5/19

- Responsible for grading homeworks and exams. Topics covered include support vector machines, gaussian discriminant analysis, various regressions, and dimensionality reduction techniques.

UC Berkeley EECS Department – *EE120 (Signals and Systems) Teaching Assistant* — 7/18 - 1/19

- Responsible for leading weekly discussion section, office hours, grading homeworks and exams, creating new content material. Topics covered include Fourier series/transforms, time series analysis, communications techniques, control systems, and filter designs.

Berkeley CodeBase – *Vice President of Operations* — 8/17- 5/19

- Executive team for software consulting club developing software products for high-growth start-ups around the Bay Area. Previous clients include Atlassian and HackerRank.

Projects

PinGREP – *Pinterest's real-time source code search tool* — 7/19

- Pinterest Hackathon 2019. Productionized internal forks of open source projects to provide real-time source code search across all source repositories with **double-digit millisecond median query latency**.
- Fully integrated with Pinterest internal services. Implemented as a **scalable, fault-tolerant service mesh** with load balancing, internal auth, and multi-zone redundancy. (made fast ctrl-f across whole codebase)

mp3-fft – *Headphone recommender using fourier transform on music* — 7/17

- Application that takes mp3 files and recommends 100+ headphones based on price, form factor, and music sound signature (bass-heavy, neutral, mid-forward, v-shaped).
- Uses the **Fourier Transform and Welch's method** to generate a power spectral density estimation of the song and classify sound signature. site: jonfung.me/mp3-fft

Awards

- **Jane Street ETC 2018** – 1st Place (Electronic Stock Trading Competition)
- **Accel Scholars, 2018-2019 Cohort** – 25 recipients. (Accel Venture Capital)
- **Kleiner Perkins Engineering Fellow, Summer 2019 Cohort** – 50 recipients. (Kleiner Perkins Venture Capital)

Skills

- Languages: Java, Python, Ruby, Scala, C, C++, Matlab
- Hobbies: Gardening, Marathons, Headphone Collecting, Disney Pin Collecting