BLAKE LARKIN

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OBJECTIVE

Seeking a position as a machine learning engineer working on large-scale industry-level systems.

INDUSTRY EXPERIENCE

Machine Learning Engineer — Applied Machine Learning — Yelp
September 2019 - Current
As a member of the User Modelling and Metrics Intelligence team, I work to create models that describe the behavior patterns of users and define decision-driving metrics that help target specific kinds of users with applicable products.

- Led design and productionization of a modelling pipeline that analyzed usage patterns to identify accounts owned by the same users on two separate Yelp apps to promote inter-app product targeting. This identification and subsequent targeting lifted product sign-up by 50%.
- Acted as project lead and primary contributing engineer on the development of a system that utilizes multi-armed bandits to adjust the output of ranking models for platform-specific optimization metrics, removing the need to support multiple models for the same task on different platforms.

Engineering Intern & Part-time Software Engineer — Revenue Optimization — Yelp
(Intern) May 2018 - August 2018; (Part-time) August 2018 - May 2019
While interning on the Recommendations and User Modelling team, I utilized embedding techniques for both users and businesses to drive recommendation systems. I continued this work as a part-time engineer during my senior year of college.

- Converted several load-bearing map-reduce jobs from an inefficient in-house runner with Apache Spark (new to Yelp at the time) equivalents. These jobs were both more efficient and more reliable, saving over $150,000 annually in resources and developer time.
- Modified Spark's built-in alternating least squares implementation to support a warm-start which reduced the drift between embedding spaces created by our latent-factor recommender systems upon retraining. This reduced the frequency at which downstream models needed to be retrained.

Part-Time Outside Contractor — Mentor Graphics & Harvey Mudd College
September 2018 - May 2019
As part of a contracted capstone project, I acted as a project manager and primary machine learning expert for a team of students. We created a system that could use end-of-production test data to determine physical machine errors in a computer chip production line, speeding-up assembly by three weeks.

Software Engineering Intern — Originate
May 2017 - August 2017
I worked on web-development powered by ES6 and React. This work had me immersed in an environment that followed a strict agile methodology and enforced test-driven and documentation-driven development.

- Explored research into generative networks by using excess internship time to create Magic the Gathering card generators with RNNs and GANs, building both my time and expectation estimation skills.

APPLICABLE SKILLS

Industry-proven expertise in Python, Apache Spark, Pandas, Sci-kit Learn, Git, and Javascript(ES6) with deep knowledge of multiple machine-learning paradigms and statistical frameworks. Ability to learn quickly matched with an enjoyment of self-teaching, particularly in technical fields. Also, added interest in computational complexity theory, especially as it pertains to the completeness of games.

EDUCATION

Harvey Mudd College — Claremont, CA
B.S. in Computer Science with Honors & High Distinction
Graduation: May 2019 — Major GPA: 3.90 — Overall GPA: 3.85

PERSONAL ACCOLADES

- Editorial reviewer of Yelp's Engineering Blog after 3 years of professional academic editorial experience, acting on my passion for the effective sharing of technical work with broad audiences.
- Eagle Scout of the BSA, showing tenacity, work ethic, and commitment.
- Graduated with highest possible academic honors, in part due to my joy for self-teaching.
- College Senate member and Dorm President for several years, representing my communication skills, leadership, and the ability to lead compromise between peers to achieve desirable outcomes.