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EDUCATION

The University of Chicago
Cumulative GPA: 3.5 / 4.0
Bachelor of Science in Computer Science and Data Science Specialization in Economics — Expected, Jun 2021
Honors & Accomplishments: Grace Hopper Scholar 2020, Facebook University Data Analytics Batch Day Finalist 2019, Google Engineering Practicum Finalist 2019, Dean's List 2017-2020 (awarded to highest-achieving students at University of Chicago), Jeff Metcalf Fellow 2017-2020, University of Chicago Grace Hopper Scholarship 2019 (awarded to highest-achieving 5 students in a STEM field to go to the 2019 Grace Hopper Celebration)

SKILLS AND RELEVANT COURSEWORK

Skills: Fluent in Python, SQL, R, Java, Ruby; experienced in C, STATA, JavaScript, C++, Arduino C, statistical modeling, A/B testing, market/user research, data mining, project management

Technologies: Apache Kafka, Docker, Linux, Kubernetes, Capistrano, Git, Jenkins, AWS (Amazon EMR & S3), Hadoop, Puppet, Spark

Relevant Courses: Machine Learning, Data Science for Computer Scientists, Big Data Analysis, Theory of Algorithms, Discrete Math, Statistical Models/Methods, Software Development, Intro to Computer Science I-II, Linear Algebra, Calculus I-II-III

WORK EXPERIENCE

Salesforce — *Sam Francisco, CA*
Incoming Software Engineer Intern in the Search Division — Jun 2020 - Aug 2020

PayPal — *Chicago, IL*
Software Engineer Intern in the Data Engineering Division — Jun 2019 - Aug 2019

- Implemented a Cronjob in Kubernetes to send heartbeat messages every 5 seconds and defined a DataDog plug-in, enabling the team to have data on Kafka topic lags in an interactive graph in terms of seconds of lag rather than message count for the first time
- Created and deployed sane memory related defaults and a dynamically adjusting heap size for certain topics in Kafka to eliminate crash loop back off by over 95% in Kubernetes pods
- Maintained Kafka replication over multiple data centers and AWS regions to make all Kafka data (across physical data centers & AWS) readily accessible to all teams and applications

Becker Friedman Institute for Research in Economics — *Chicago, IL*
Data Scientist — Sep 2018 - Jun 2019

- Performed data cleaning and data mining using association and outlier detection via Python, R, and SQL to investigate the influence of the perception of Saudi husbands on the female labor force participation in Saudi Arabia
- Implemented scalable algorithms for similarity detection across analysis units in Python (Pandas) with ~60% gain in speed
- Worked on feature engineering and analyzed several datasets in detail to detect anomalies, outliers, and underlying patterns to increase model performance with ~43% faster results and increased accuracy in detecting similarities

PROJECTS

Modeling Opinions and the Female Labor Force Participation Gap in the U.S. — Mar - Jun 2020

- Evaluated which data features are relevant in modeling labor force participation and the labor force participation gap (using techniques such as LASSO);
- Implemented a kNN model that was 76.1% accurate in predicting female labor force participation using a variety of features

Developing Kafka Tooling for managing and monitoring Kafka data replications and topics — Jun - Jul 2019

- Reduced load on Kafka brokers by 75% by implementing various Kafka tools, leading to reduction in redundant monitoring-mode time
- Designed and implemented a notification system infrastructure to alert all downstream dependents when a Kafka topic is misbehaving in a production environment using Capistrano task deployment system
- Set up a new cloud-based infrastructure to decrease load on Kafka brokers by 43% and keep Kafka tooling separate for other teams' usage

Predicting Yelp Elite status — Mar - Jun 2019

- Ingested large amounts of Yelp data via MapReduce jobs and used natural language processing (NLP) to assess whether elevated language in reviews help to become an Elite Yelp member
- Trained a logistic regression model using various hypothesized key factors to predict Elite status with 97.8% prediction accuracy
- Implemented a k-nearest-neighbors algorithm to find the most similar users with 95% accuracy in grouping Elite Yelp members together

LEADERSHIP ACTIVITIES

Girls Who Code — *San Francisco Bay Area, CA*
Teaching Assistant — Jun 2018 - Aug 2018

- Taught a class of 20 minority female high school students, all of whom later placed into top colleges to study computer science, utilizing a project-based curriculum on foundational computer science at Walmart Labs to develop programming skills and soft skills
- Self-taught Javascript and Arduino C before the start of the internship and mastered Javascript, HTML, and CSS through personal projects
- Mentored and assisted coding projects, including large scale data analysis projects using JSON files and development of an IOS mobile app