Kevin Fang

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Education

Duke University | Trinity College of Arts and Sciences *05/2022*

B.S., Computer Science | Minor, Linguistics

Summa Cum Laude | Dean's List with Distinction | Cumulative GPA: 3.98/4.00

Relevant Coursework: Design and Analysis of Algorithms, Advanced Distributed Systems, Operating Systems, Computer Network Architecture, Databases, Computer Architecture, Data Structures & Algorithms, Object-Oriented Programming, Discrete Mathematics, Linear Algebra, Statistics and Probability, Introduction to Data Science

Professional Experience

Instagram (Meta) | Software Engineer Intern | New York, NY (remote) *06/2021 — 08/2021*

- Improved ML-based ad-ranking algorithms to account for new factors in design and user preferences for ad formats
- Designed & implemented end-to-end Python platform for ranking engineers to determine impact of various ad features
- Created experiments on different segments of users to determine effectiveness of performance optimizations
- Built recurring data pipelines to query petabyte-scale tables with SQL for extracting ads performance signals

Google | Software Engineer Intern | Mountain View, CA (remote) *05/2020 — 08/2020*

- Developed software suite to vastly simplify integrating NLP and live-agent chat into external partner chat services
- Built server to receive chat requests and direct messages appropriately, with unit tests achieving >90% test coverage
- Integrated Firebase Realtime Database to track user and conversation status of >100,000 simultaneous conversations
- Created Python script for server initialization and deployment to GCP App Engine, reducing deployment time by ~80%

Intralinks | Data Science Intern | New York, NY *05/2019 — 08/2019*

- Performed scraPy web scraping and exploratory data analysis on Mergers & Acquisitions data to direct model selection
- Built M&A prediction pipeline consisting of supervised and unsupervised learning in TensorFlow and scikit-learn, including NLP techniques such as sentiment analysis and named entity recognition

Curoverse Research | Data Science Research Intern | Somerville, MA *06/2016 — 01/2019*

- Developed gene mutation search tools to analyze terabytes of sequenced genomic data with numPy
- Predicted eye color and blood type to 95% accuracy using SVM and neural networks in scikit-learn
- Presented about open science and genomic analysis to >100 conference attendees at Harvard Medical School

Selected Projects & Awards

Vase: A Scalable, Consistent, and Sharded Key-Value Store *05/2022*

- Proposed, built, and benchmarked distributed and consistent K/V store on Google Kubernetes Engine using etcd
- Utilized ReplicaSet scaling for front-end Python sharding service, and StatefulSet scaling for K/V store backend
- Used load generation service (locust.io) to benchmark and demonstrate improved throughput, latency, and tail latency.

Citadel Trading Competitions — 1st Place *(Duke University)* *01/2020*

- Won first place in two invite-only market making and betting competitions held by Citadel Securities

PillUp Medicine Dispenser — 1st Place *(Johns Hopkins University Hackathon)* *09/2018*

1st place out of 62 teams | Siemens Sponsor Award: Best Healthcare Hack

- Developed and built low-cost robotic pill dispenser with Arduino Mega, Raspberry Pi, and servo motors.
- Created Python Flask web server and implemented socket.io communication protocol for 2-way communication
- Implemented React.js web application designed with Material-UI for physician view

Technical Skills

Programming

- Python, C, C++, Node.js, Java, Kotlin, R, MIPS Assembly
- HTML, CSS, JavaScript, SQL
- Web, Android Development
- Data Science, Machine Learning

Libraries

- Scikit-learn, TensorFlow, NumPy, Pandas
- React.js, Express.js, Mocha.js, Flask
- PostgreSQL, Firebase
- Common Workflow Language, RxJava

Developer Tools

- Git, GitHub, LaTeX, Docker
- AWS, GCP, Kubernetes
- Vim, Eclipse, Android Studio
- Unit Testing