Kathan Gandhi

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Education

UC Berkeley - EECS Expected Graduation: 2023

B.S in Electrical Engineering and Computer Science *GPA: 3.78*

- **Courses**: Data Structures, Artificial Intelligence, Computer Architecture, Information Devices & Systems, Programs, Discrete Math & Probability, Efficient Algorithms
- **Awards**: AWS Certified Cloud Practitioner, CAA The Leadership Award, HKN Outstanding Rookie Officer

Skills

Languages: Java, Python, TypeScript, HTML, CSS, Swift, SQL, C/C#/C++, MATLAB, LaTeX, RISC
Frameworks: AWS, React/React Native, Numpy, Tensorflow, PostgreSQL, Arduino, Jest, JUnit, Django
Developer Tools: Git, Linux, Logisim, VS Code, Jupyter, IntelliJ, Eclipse, Notion, Slack, Confluence

Experience

Software Development Engineering Intern Aug - Nov 2022

Amazon - JustWalkOut *Seattle, WA*

- Invented 2500-line store model history tool supporting 250+ stores worldwide on React-Typescript-CSS website
- Boosted website testing coverage by 300% with 40+ new unit tests built upon Jest and Enzyme testing paradigms
- Integrated 2 React API client methods to support 3 additional uses cases and shrink latency by 5+ seconds

Software Engineering Intern May - Aug 2022

AirMettle *Houston, TX*

- Upgraded simdjson library to latest version and refactored 20+ files using git operations until 0 compilation errors
- Experimented on 2+ SIMD filters in C/C++ which produced 2x-5x speedup on 10-100 test datasets
- Investigated testing suite of 200+ tests to eliminate 5+ sources of errors in codebase with 100+ files

VP of Research Jan - May 2022

Cloud at California [CLAC] *Berkeley, CA*

- Presented COVID symptoms survey web app demo using S3, Lambda, and API Gateway with 10 trial participants
- Curated GitHub repository with 5 AWS project examples for research inspiration while leading diverse team of 15

Virtual Tech Instructor May - Aug 2021

ID Tech *Frisco, TX*

- Educated ∼50 students about OOP, AI, and cryptography through coding demos and introspective questions
- Guided students to pursue interests through game projects like Crossy Road and Rock-Paper-Scissors detector
- Resolved 100+ syntax, runtime, and setup errors on Mac and Windows OS to demonstrate debugging in action

Projects

EyeNet | *Python, Tensorflow, Numpy, Tkinter, Git* Nov 2019 - May 2020

- Created algorithm for automated diabetes diagnosis with 80% accuracy when trained on 1000+ retinal images
- Utilized Python's Tensorflow, Keras, and Numpy libraries to build CNN model spanning 1000+ lines of code
- Designed 3-step intuitive GUI using Tkinter which displayed prediction based on uploaded images

Research

A Holistic Approach to COVID-19: Prediction to Prevention May - Sep 2021

Turkish Journal of Computer and Mathematics Education

- Combined epidemiology, topology, and meteorology perspectives to explain emergence of COVID-19
- Reviewed pandemic predictions and opportunities for IoT in disease control

Machine Learning: The New Language for Applications May - Oct 2019

International Journal of Artificial Intelligence [Open-Access] *16 Citations*

- Informed readers about 10+ unsupervised, supervised, and reinforcement learning algorithms
- Offered potential applications and implications to encourage practical implementations of machine learning