Jay Dang

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EDUCATION

University of California, Berkeley September 2021 - May 2024 (expected)

B.A. Computer Science, Overall GPA: 3.8, Major GPA: 3.94 Berkeley, CA

Coursework: Algorithms, Data Structure, Software Engineering, Computer Architecture, Optimization, Discrete Math, Probability and Random Processes, Web Development

Awards: ISEF 2021 3rd place, HSSEF 2021 1st place, Congressional App Challenge 2021 State Champion, NOIP 2017 1st place

WORK EXPERIENCE

Co-Founder, Markit.ai Co. May 2022 - Present

Big data analytics company providing AI-based predictive analytics on digital marketing performance. I designed product architecture and features and managed the dev team. Reached $4k in revenue and ~100 users in the first month of launch.

- Managed 7 software engineers using OKR, organized dev and product sync, and launched the first product in 2 months.
- Created 4 ML-based algorithms to perform analytic prediction using Tensorflow and Pytorch, outperforming competitors by 23%.
- Speed up user flow operations by 10x(than competitors) by parallelizing ML models and load balancing with Nginx and Gunicorn.
- Architectured the WebUI using React/TypeScript, integrated SEO using Next.js and deployed with CI/CD using AWS Amplify.
- Implemented Role-based REST API Endpoints and data fetching, processing, and storage pipeline with Flask and AWS.

Software Engineer Intern, Luum Robotics Inc. May 2022 - July 2022

Robots Company in Oakland focuses on optimizing cosmetic service in the beauty industry with machine learning. I expanded the features of the ML system and detection algorithms.

- Built an ML-based computer vision algorithm with OpenCV and YoloV5 that improved detection tasks' accuracy by 20%.
- Architectured ML infrastructure with C++ and TensorRT that increase model deployment efficiency and performance by 400%.

Data Scientist Intern, C. Light Technologies Inc. Feb 2022 - May 2022

Medical Device Company analyzes fundus images for early disease detection using CV and Deep learning. I expanded features on data infrastructure to process and analyze image data.

- Implemented data pipeline in Linux to generate image data and ensure data quality with OpenCV and statistical model using Numpy, SQL, and Python, improved image data quality and model accuracy by 15%.
- Trained and compared object detection models on retinal images, researched object tracking schema on video sequences to support ML detections and stabilize traces using Pytorch and OpenCV.

PROJECTS

Glaucomark Oct 2019 - Jun 2021

Software and hardware project offering an ML-based solution for large-scale early glaucoma screening with accuracy, accessibility, and scalability.

- Researched and designed an innovative ML-based algorithm that diagnoses glaucoma with 97% accuracy in under one minute, published the algorithm in a peer-reviewed journal as the first author.
- Deployed a full-stack React/Node JS web service for online early glaucoma diagnosis from user-inputted retina images.
- Interviewed 15+ external stakeholders for professional and business development insights, and presented to multiple science fairs.

AppDev at 'Iolani Aug 2020 - Jun 2021

Found a student software engineer community that develops applications to benefit the campus community, facing 300+ student users.

- Built a Vue/Firebase website providing user-friendly laundry room monitoring service to reduce congestion, officially accepted.
- Designed an interactive text-based video game to educate high school seniors about college loans, used by college counselors.
- Created a web-based launchpad that combines and syncs beatbox audio clips with sound effects to produce amazing music.
- Led a 7-member engineering team, proposed and researched product insights, oriented members, and set development goals.

SKILLS

Languages: Python, Java, C/C++, C#, Bash, Javascript, TypeScript, HTML/CSS, R, SQL

Tools/Frameworks: React/ Redux, Vue, Next.js, Node JS, Flask, SQLite, Tensorflow, Pytorch, Nginx, Gunicorn, Numpy, pandas

Platforms: Amazon AWS(EC2, S3, DynamoDB, Lambda, Cognito, ECS/ECR), Google Cloud Platform, TensorRT, Docker, CI/CD