Derek Jeong

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Technical Skills

Programming Languages: JavaScript, Go, Python, PHP
Web Development: React.js, Vue.js, HTML/CSS, RESTful APIs, Expo, Video.js
Database Management: MySQL, MongoDB, RedShift, AWS S3 & RDS
Artificial Intelligence: TensorFlow, PyTorch, AWS SageMaker
Tools: AWS, Docker, Git, VS Code, Visual Studio, Linux, Unreal Engine 4, OpenCV, Figma

Experience

Software Engineer, Ezoic Inc. – Carlsbad, CA March.2022 – June.2024

- Implemented user-friendly interfaces and multi-platform responsiveness using **Vue.js**, **HTML/CSS**, and **Figma** for frontend and **Go** for backend, ensuring a cohesive user experience and seamless integration.
- Developed a video creator web platform, called Humix, for publishers and content creators using **VideoJS**, **JavaScript**, **Vue.js**, **Go**, **MySQL**, and **AWS**. Optimized the video player for content and ads like reducing video buffering by about 30% and improving **Core Web Vitals score** for Humix and video pages.
- Pioneered innovative AI projects with **AWS SageMaker** and **ChatGPT**, enhancing Ezoic's video platform by integrating advanced analytics and automated video matching and categorization to improve video content relevance and user experience.
- Developed **RESTful APIs** with **Go** to create **CRUD** operations for video upload, processing, and management, enabling efficient video handling for clients.
- Created scalable and efficient microservices architecture using **AWS Lambda**, **Cron**, **SQS** and **Go**.
- Maintained company products and video platforms through an emergency support schedule with **AWS DevOps**, **CloudWatch**, and **Opsgenie**, dedicated bug fix days, effective team collaboration, and active participation in the technical solutions community at Ezoic.

Frontend Developer, Wizrds LLC. – Sacramento, CA June.2021 – January.2022

- Managed web development projects, optimizing cross-browser and multi-platform responsiveness using **HTML/CSS** and **JavaScript**.
- Implemented user-friendly interfaces and functionalities using **React.js**.
- Enhanced application performance by refactoring codebase and optimizing rendering processes with **Python**, **Node.js**, **TypeScript**, and **React**.
- Integrated **TypeScript** with **MongoDB** for efficient data storage and retrieval, improving application data management.
- Collaborated with UX/UI designers to implement **UX/UI** improvements, resulting in a more intuitive user interface.

Projects

Humix.com | JavaScript, Vue.js, Go, AWS, MySQL, SageMaker, Video.js 2023 – June.2024

- Developed and maintained a dynamic video streaming platform using **JavaScript**, **Vue.js**, and **Video.js**.
- Implemented **back-end** services with **Go** to handle video processing, user authentication, and data management.
- Deployed and managed cloud infrastructure on **AWS**, ensuring scalability and reliability of the application.
- Optimized database operations and queries for performance using **MySQL**.
- Integrated **AWS SageMaker** for advanced machine learning capabilities, enhancing video recommendation and user experience.

Check-crypto | JavaScript, React, Go, AWS 2024 – Present

- Developed a web-based platform providing trust levels of cryptocurrencies for all users, acting as a scam checker.
- Implemented backend services using **Go** and **AWS** to analyze and verify cryptocurrency data.
- Designed and developed the front end with React.js to ensure a user-friendly interface.
- Integrated **RESTful APIs** to fetch real-time data on cryptocurrency legitimacy and potential scams.

Interactive Visualization for AI Education | JavaScript, React, TensorFlow, Keras 2020 – 2021

- Collaborated on an undergraduate senior capstone project with mentor Dr. Kahng Minsuk.
- Developed a web-based interactive visualization tool using **Jupyter Widgets** and **Python**, aimed at beginners learning **AI** or **machine learning**.
- Generated various visualization features such as confusion matrix, accuracy changes, feature extractions, and connections across layers of AI models.

Automatic Investment Bot for Cryptocurrency | Python, PyQt, OpenAPI 2021

- Participated in the 2021 BeaverHacks Hackathon alongside another undergraduate student and won 2nd place.
- Created an automatic investment bot for **cryptocurrency** using **OpenAPI** and Volatility Break-out strategy.
- Designed user-friendly interfaces for checking cryptocurrency overviews, charts, orderbooks, and login authentication.

Teachable Machine | JavaScript, TensorFlowJS, NodeJS 2020

- Independently worked on a project with mentor Dr. Kahng Minsuk.
- Developed a web-based tool with **JavaScript** that simplifies creating machine learning classification models.
- Implemented KNN classifier and neural network using **TensorFlowJS API**, achieving over 90% accuracy for each class with a minimum of 10 images.

Education

Oregon State University – Honors Bachelor of Science in Computer Science, 3.86 GPA 2017 – 2021

Research

- Data Analysis and Visualization with Unreal Engine - URSA Engage 2019 with Dr. Raffaele de Amicis
- Improve the Grasping Performance by Analyzing Target Objects with Computer Vision and Deep Learning Algorithm - Honors College Thesis with Dr. Cindy Grimm and Oregon State University Robotics team