# **Derek Jeong**

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# **Technical Skills**

Programming Languages: JavaScript, TypeScript, Go, Python, PHP

Web Development: React.js, Vue.js, HTML/CSS, RESTful APIs, Expo, Video.js, Next.js, Tailwind CSS

Database Management: MySQL, MongoDB, RedShift, AWS S3 & RDS

Artificial Intelligence: TensorFlow, PyTorch, AWS SageMaker, OpenAl APIs, LLM tuning

Tools: AWS, Docker, Git, VS Code, Visual Studio, Linux, Unreal Engine 4, Figma, Lighthouse, Postman

## **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 Video.js, 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 Al 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.
- Optimized web development projects for 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 and ChatGPT 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 Al 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
   Al 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 **Research** 

2017 - 2021

- 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