JIMMY ZHANG

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SKILLS

- Languages: JavaScript, TypeScript, Python, PHP, Ruby, HTML, CSS
- Frameworks & Libraries: ReactJS, Vue.js, Node.js, Next.js, Express, TailwindCSS, Vuetify, jQuery, SASS, EJS, Rails
- Databases & Cloud: MySQL, PostgreSQL, MongoDB, Git, AWS (EC2, S3, RDS), Vercel, Netlify
- Testing, Tools, & Other: Jest, Supertest, Cypress, Mocha, Chai, Git, npm, Web Scraping, Agile Development, SEO

EXPERIENCE

Software Engineer | Outlier

Oct 2024 - Present

JavaScript, Python, HTML, CSS

- Develop and evaluate programming tasks with JavaScript and Python, contributing to 5+ projects to advance LLM training pipelines designed to challenge model reasoning, induce failure cases, and improve code generation accuracy and problem-solving ability
- Conduct peer code reviews focused on validating code execution, reasoning, and adherence to project guidelines, identifying and
 correcting inconsistencies to improve dataset quality and model reasoning reliability across large-scale AI training workflows
- Maintain a 96% QA approval rating, demonstrating precision, reliability, and adherence to strict prompt-evaluation guidelines
- Utilize peer review data to debug and refine completed programming tasks, improving dataset reliability and model performance

Full Stack Developer | Originality.AI

Aug 2023 - Feb 2024

JavaScript (Vue.js), PHP, Python, MySQL, AWS (S3, RDS), HTML, CSS

- Developed and launched 4 AI-powered web tools end to end, independently conducting research to define requirements, building JavaScript frontend interfaces, and designing PHP/MySQL backend architecture, expanding the company's AI product lineup by 44%
- Delivered 15+ PHP REST APIs supporting AI web applications, handling AI content generation, user data ingestion, reCAPTCHA
 validation, and secure synchronization between Vue.js clients, AWS RDS databases, and server-side components
- Engineered and automated an asynchronous PHP crawler to scan and parse robots.txt data across 1,000 domains for blocking behavior of 17 web crawler user-agents, producing ~17k time-series data points daily for dashboard analytics with MySQL
- Built a Python utility leveraging binary search algorithms to process 20+ years of archival web data, averaging 233k snapshots per domain, to efficiently identify first crawler block dates, optimizing for lowest possible API usage and high query performance
- Led AI crawler bot detection research and data analysis, uncovering patterns in crawler behavior across top publisher domains, with findings cited in articles by <u>Axios</u>, <u>Business Insider</u>, and <u>Digiday</u>, positioning Originality.AI as a trusted authority on AI transparency

PROJECTS

AI Portfolio Chatbot | TypeScript, React, Express, PostgreSQL, LlamaIndex.ts, OpenAI, Jest, Supertest

- Built an AI-powered chatbot for my website that answers questions about my background using retrieval-augmented generation (RAG)
- Integrated LlamaIndex and OpenAI API to ingest, embed, and index 10+ personal projects and bio documents, leveraging semantic search to deliver contextually accurate, source-grounded responses with a ~4-5 second average response time
- Engineered Express backend with TypeScript to handle chat routing, manage API requests, and serv vectorized document data
- Designed and implemented UUID-based session management and rate-limiting middleware, tracking message counts, timestamps and request limits to prevent API overuse and ensure stable performance under concurrent usage across 100+ user sessions

AI Resume Analyzer | TypeScript, React, Puter.js, TailwindCSS, HTML, Zustand

- Built a resume analysis web application that utilizes AI to provide actionable feedback and detailed scoring for Applicant Tracking System (ATS) compatibility, tone, content quality, and structure to help users improve job application success rates
- Developed a comprehensive PDF parsing and file-handling pipeline integrated with AI job-specific analysis and a version-tracking dashboard, empowering users to upload, compare, and analyze resume iterations over time with quantitative scoring and feedback
- Leveraged Puter backend environment for AI processing, secure file storage, user authentication, and deployment for scalability

EDUCATION

Lighthouse Labs

2023

Diploma of Web Development

University of British Columbia

2022

B.A. in Economics, Minor in Commerce

- Relevant Coursework: Systematic Program Design, Computational Thinking, Matrix Algebra, Calculus (Differential & Integral), Empirical Economics (Data & Statistical Analysis), Empirical & Quantitative Research
- Involvement: Associate Vice President (Engagement Portfolio) + Marketing Associate with Arts Undergraduate Society

AWARDS