Ali Zaini

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Experience

Stitch *(Y-Combinator start-up)* | Founding Software Engineer   (London/San Francisco, Nov 2023 – Apr 2024)
- Engineered automated deployment infrastructure utilizing **AWS** and **Docker**, including a **Go**-based agent for log transmission from **EC2** instances to **S3**, enhancing user visibility and enabling commands such as updates and disabling installations
- Implemented a job processing system for installations to increase completion rates by providing progress tracking, background task execution, and email notifications
- Published a **React** library to **npm** for creating custom widgets to be used in our low-code drag-and-drop app builder. This was further extended into a system that automatically imports React UI libraries for usage as widgets. This worked by extracting **TypeScript** properties for the components and using an LLM to format them with icons and default values
- Implemented GitHub **OAuth** to get user's access token, enhancing user experience, security and allowing access control

Palantir | Software Engineer   (London, Aug 2022 – Nov 2023)
- Spearheaded the integration of AI/LLM features into Slate, an advanced low-code application builder in Foundry, making our team the first within the company to incorporate these capabilities and setting early design standards for other AI features
- Migrated key components of the application from legacy **Angular.js** to modern **React**, improving performance and maintainability
- Developed a messaging protocol for communicating between browser windows, resulting in a consistent messaging schema across the browser and our Electron-based platforms. This enabled users to create more advanced apps that connected with additional tools within Foundry/Gotham
- Optimized server requests, reducing load on services & databases by **over 50%** by debouncing requests and adding caching
- Mentored an intern over 13 weeks to successfully deliver impactful user-facing features, resulting in them receiving a return offer
- Transitioned hack week projects to customer availability within just 2 weeks, collaborating closely with the legal team to ensure compliance with data privacy requirements and design teams to create a design language for the features

FactSet | Software Engineering Intern   (London, June – Aug 2021)
- Expanded a financial data summary API to support both Slack and Microsoft Teams, written in **TypeScript** using **Express.js**
- Built a Slack bot that employs the API, enabling users to search for companies and obtain recent events and financial information
- This application was deployed on **AWS Lambda** and had **Swagger/OpenAPI** documentation

BlackRock | Software Engineering Spring Intern   (London, Apr 2021)
- Developed a live demo to showcase workflow enhancements using **React** and **Chakra UI**
- Implemented algorithms for fulfilling orders and calculating the value of investments over time
- Demonstrated strong performance, resulting in being fast-tracked to the BlackRock APG Summer Analyst Programme

Project Experience

Link the Players   [(www.linktheplayers.com)](www.linktheplayers.com) | Next.js, Vercel, MongoDB
- Created a successful online sports trivia game with over **5,000,000 games played and 4,000,000 views** on TikTok. The game generates daily revenue via Google Adsense
- Developed a **custom analytics system** to gain insights into user activity. Upgraded the metrics to Google Analytics and Vercel
- Designed the original game with extensibility in mind, and subsequently released versions for Formula 1, NBA, MLB, NFL and UFC
- Rewrote the algorithm for generating games, reducing monthly function execution time from **1025 GB-hrs to 66 GB-hrs**. This helped avoid a **20x overcharge fee, reduced errors, and improved performance** for end-users

Q&A Chat Bot Using Retrieval Augmented Generation   Pinecone, OpenAI, Next.js, cheerio.js
- Developed a custom Q&A chat bot for a community centre using **Retrieval Augmented Generation (RAG)** techniques
- Scraped data using **Node.js** and **cheerio.js**. Used **Pinecone vector database** to store **OpenAI** embeddings
- Answered **7000+** questions and had **1000+** chat interactions. Included a custom reporting tool for receiving feedback from users

Other Projects
- Produced an electoral information website with a search tool, funded by the United Nations (UNAMI/UNDP)
- Conducted a dissertation research project and implemented an automated coding assessment system [GitHub] [Demo video]
- Built telemedicine web app in a team of nine for patient submissions, doctor reviews, and automated appointment reminders. Conducted extensive Jest and React Testing Library tests [Demo video]
- Redesigned and expanded a geopolitical news and current affairs website
- Published a mobile keyboard app to the Google Play Store, achieving over **200+** downloads [Website]
- Developed a databank website to serve as a repository for writers, researchers, and analysts
- Built a command-line interface (CLI) tool for scraping torrent magnet links from the web
- Open-source contributions to slack-block-builder, including creating a REPL development tool

Education

King's College London   (June 2022)
- **Computer Science BSc** (First Class Honours)
- Dean's Commendation for AKC. KCL Gaming & Esports Society & KCL Tech Society

Skills

- Experienced in JavaScript, TypeScript, HTML, CSS, React, Next.js, Python, Go, Java, MongoDB, Express.js, Node.js, SQL, Linux, WSL, Version Control (Git, GitHub), Amazon Web Services (AWS), Vercel, Tailwind CSS, Jest, React Testing Library