Ray Jia Zhang

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 $\underline{\text{Personal Site}}$

EXPERIENCE

Software Developer

May 2024 - Dec 2024

Konrad Group

Vancouver, BC

- Devised **Next.js** frontend solutions for a leading Canadian property management company, including an overhaul of the corporate marketing site, improving **SEO** and user experience
- Re-engineered a charity web application from scratch to host auctions for fundraising, serving 500+ users with real-time notifications and live bidding functionality. Utilized **React**, **Typescript**, **GraphQL**, **Prisma**, and **MariaDB**, improving site responsiveness by 75%
- Deployed a **Contentful** extension enabling safe duplication and migration of content entries across environments, leveraging **AWS Lambda** functions and Contentful API integrations with secure authorization and request signing, doubling the efficiency for content authors' workflows company-wide
- Monitored and assessed errors in a Contentful CMS ensuring critical uptime. Evaluated error risks, investigated high-priority issues, and advised the client on solutions to maintain system reliability

Software Developer, Web Application

Jan 2023 - Aug 2023

Semtech Corporation

Richmond, BC

- Developed a JavaScript tool using the Fortify framework to evaluate hardware performance in bulk signing operations over millions of iterations. Presented findings, influencing hardware use in new company initiatives
- Designed and deployed new robust **JUnit Selenium** tests and **Apache Ant** scripts to expand automated testing framework of 200+ tests, improving test case pass rate increase from 75% to 100%
- Proactively addressed both feature implementation and bug fix tickets for both the React.js frontend and the **Java Spring** backend to expand functionality and increase customer satisfaction
- Presented and organized content to aid the on-boarding of 2 new teams to the Automated Testing Environment

PROJECTS

NHL Game Guesser (Personal) | React, tRPC, Express, MongoDB

Mar 2025 - Present

- Built a full-stack web app using **React**, **Typescript**, **Express** and **MongoDB** to allow authenticated users to vote on NHL game outcomes
- Leveraged **tRPC** to implement an end-to-end type-safe API facilitating JWT-based user authentication and persistent session handling
- Deployed frontend on Vercel and backend on Railway, configuring environments for seamless production readiness

Music Composition AI (Personal) | Python, TensorFlow, Pandas, Numpy

Aug 2022

- Designed and trained a multi-layered LSTM neural network in Tensorflow with Keras' Functional API to compose short MIDI clips
- Engineered an automated data pipeline to preprocess 22,297 multi-featured training examples sourced from the MAESTRO dataset for input

$\textbf{Cryptocurrency Bank Account (Academic)} \mid \textit{Java, JSwing, JUnit}$

Dec 2021

- Developed a cryptocurrency bank account in Java with a fully interactive GUI built in JSwing, with an emphasis on proper and scalable OOP principles, leveraging Singleton and Observer design patterns
- Engineered and deployed comprehensive unit tests in JUnit to achieve 100% code coverage

TECHNICAL SKILLS

Languages: Javascript, Typescript, Java, Python, Go, SQL, GraphQL, HTML/SCSS

Frameworks: React.js, Next.js, Node.js, JUnit, Selenium, Terraform, MariaDB, Prisma

Developer Tools: Git, Docker, Jenkins, AWS

Certifications: Machine Learning (Coursera), Neural Networks and Deep Learning (Coursera), Databases and SQL for

Data Science (Coursera, IBM)

EDUCATION

University of British Columbia

Sep 2021 - May 2025

Bachelor of Science in Computer Science

Vancouver, BC

- Relevant Coursework: Software Engineering, Distributed Systems, Hardware and Operating Systems, Statistics
- Extracurriculars: nwPlus Hackathon Mentor, UBC Recreation Assistant Director, Vietnamese Student Association