VICTOR WEI

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TECHNICAL SKILLS

Languages: Typescript, Javascript, HTML/CSS, Python, C++, C, Java, SQL, Bash, Rust
Developer Tools: Linux, Git, Jira, AWS (EC2, S3, Cloudfront, EKS), Cloudflare, Webpack, Docker, Helm, Vim
Technologies/Frameworks: Node.js, Express, React, Angular, Nginx, Flask, PostgreSQL, MongoDB, Kubernetes, Tensorflow

WORK EXPERIENCE

Software Engineering Intern • **TD Securities**   **Sept 2023 – Present**

- Efficiently manage both internal and public-facing web tools, APIs, and workflow processes constructed using **React** and **Flask**, which play a pivotal role in product lifecycle tracking across diverse data sources.
- Utilize **Tableau** for visual analytics and **Alteryx** for data blending to maintain and oversee deal pricing, management, and market intelligence infrastructure within **MongoDB** and **SQL** databases, placing emphasis on timely product delivery.
- Apply scalable automation with **Rundeck** to generate offering documents and marketing materials with **99%** accuracy.

Co-Founder • **Miniblox**   **Sept 2022 – Sept 2023**

- Successfully launched a Typescript-based multiplayer voxel game using **Three.js/Socket.io**, attracting over **10K** monthly users, and driving revenue through in-game microtransactions and video ad monetization, culminating in a **20K ARR**.
- Engineered an efficient CI/CD pipeline via **Github Actions**, facilitating client releases to **S3**, subsequently distributed via Cloudfront; managed the infrastructure by hosting dockerized Node.js servers using **Kubernetes** for robust scalability.
- Architected a scalable infrastructure solution using **ArgoCD** for Helm chart deployment in **DigitalOcean K8s**.
- Effectively led and managed a team of 8 developers, fostering collaboration and ensuring timely project deliveries.

Game Developer Intern • **ArenaX Labs**   **Jan 2023 – Apr 2023**

- Enhanced the in-game's Bayesian neural network by systematically tuning regularization lambdas with player-specific feedback, prevent overfitting and significantly enhancing the training pace for the AI-driven platform fighter game.
- Transitioned the codebase from **Javascript** to **Typescript**, fostering improved workflow and elevated code integrity.
- Overhauled player model rendering by adding LOD and reducing model complexity, improving client framerate by **20%**.

Full Stack Developer Intern • **Voiceflow**   **May 2022 – Aug 2022**

- Developed and deployed a full-stack feature from end-to-end using **React/Redux**, which streamlined the visual markup process and significantly improved engagement and canvas flow for users.
- Proactively tracked and improved the performance of key components, leveraging **LogRocket & Sentry** to send customers' aggregated performance data and reducing client-side errors by **15%**.
- Translated designs into front-end components and tackled **UI/UX** bugs and enhancements with **Styled Components**.

Machine Learning Intern • **Mitra Biotechnologies**   **Jul 2021 – Apr 2022**

- Developed and optimized a convolutional neural network using **Tensorflow/Keras** to predict potential heart diseases in patients, reducing time-to-intervention for a cardiovascular case from around **30 to 2 minutes**.
- Researched and implemented the algorithm within a Doctor-to-Patient app using **React Native** to seamlessly allow doctors and patients to track their progress.

PROJECTS

AirFlip | *TensorFlow MoveNet, Web Speech API*   **Aug 2021**

- Built an award-winning **React user interface** to provide users more seamless methods to flip through documents using gesture detection and speech recognition; won the **finalist award** (out of 477 teams) at Hack the North 2021.
- Utilized the **Tensorflow MoveNet** pose detection model to track the user's key facial points and built a custom feed-forward neural network to predict the gestures required to flip the page in real-time.

QuickMark | *MEAN Stack, OpenCV*   **Jan 2021**

- Developed an acclaimed web app utilizing the **MEAN** stack which automatically crops assignment questions using **OpenCV**, enabling teachers to mark multiple tests/assignments simultaneously.
- Led the project collaboration as a team of four and achieved the **finalist award** at Hack the North 2020++.

EDUCATION

Bachelor of Software Engineering | *University of Waterloo*   **Sep 2021 – Apr 2026**