Jonathan Ung

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Technical Skills

- **Machine Learning:** NumPy, PyTorch, Pandas, Tensorflow
- **Front-End:** React, Next.js, Angular, Flask, Django, Spring MVC, SASS, jQuery, Flutter, Bootstrap, Tailwind
- **Back-End:** SQL (PostgreSQL, MySQL, SQLite3), Express, MongoDB, JWT, FastAPI, Flask, Spring Boot, Bcrypt
- **Deployment:** AWS, Kubernetes, Docker, Git, CI/CD, Cloudflare, SSL, Nginx, DigitalOcean, Defang
- **Languages:** Python, TypeScript, JavaScript, C++, C#, SQL, Java, GD Script, Dart, Bash, Perl, HTML, CSS
- **Miscellaneous:** QT6, Protobuf, JavaFX, Unity, TensorFlow, Keras, Regex, Scripting, OOP, API, REST, CMAKE, ROS

Technical Work Experience

Code Sensei   August 2023 - PRESENT
Code Ninjas - Richmond, BC

- Engaged children in developing coding fundamentals, built expertise in Unity to support complex student projects
- Deployed and managed a scalable NAS system for efficient project data storage, unifying student data locations

Software Engineering Intern   August - November 2022
MVP IT Solutions - Daytona Beach, FL, USA (Remote)

- Engineered scalable and reusable components using the Flutter framework
- Optimized API calls to improve cloud database efficiency and reduce operational costs
- Debugged and tested applications, minimizing integrity errors and enhancing reliability

Technical Extracurricular Activities

Software Team Lead, C++ Software Developer   February 2024 - PRESENT
SFU Robot Soccer Club (Bandits FC) - Burnaby, BC   https://gitlab.com/sfurs/software

- Directed development of FSM Agent, Networking Protocols, CI/CD & Unit Testing, and various other tasks
- Coordinated project goals across Firmware, Electronics, and Mechanics teams for alignment and progress
- Dockerized application for widespread compatibility, improving overall testing and continuous development

Vice President, Lead Hackathon Coordinator, Executive Advisor   April 2023 - April 2024
Langara Computer Science Club - Vancouver, BC

- Secured funding and collaboration with academic departments to host Langara Hacks, the inaugural hackathon
- Managed event logistics and standardized organizational processes, creating efficient oversight procedures

Technical Projects

AutoStop - Emergency Braking Simulator   December 2024 - PRESENT
Python, Open3D, CARLA 0.9.15, ROS, Pytorch | Python O3D Application   https://github.com/jonathanung/AutoStop

- Extrapolating LIDAR data from Point Clouds using OpenCV2 and working on noise sanitization
- Integrated a PID controller to ensure the vehicle accelerates smoothly in preparation for simulation

BlackjackNN - Blackjack Q-Learning NN   November 2024
Python, PyTorch, Matplotlib, Numpy, Tkinter | Python Tkinter Application   https://github.com/jonathanung/blackjackNN

- Trained a Q-Learning Algorithm to learn and play fairly shuffled 1v1 Blackjack, using PyTorch for NN modelling
- Visualized training progress and performance metrics using matplotlib, and allowed players to utilize model in TK

Sewjo - Sewing Pattern and Fabric Interface   FABCYCLE X CMPT 276, May - August 2024
Java Spring, PostgreSQL, Next.js, OCRSpace | Java Spring Full Stack Application   https://github.com/niomedev/sewjo

- Led majority of interactions between our group and FABCYCLE, and handled merge requests and features
- Developed the framework for the application, including CORS, Backend Models, Controllers, and Webpages

Transcribr - Discord Transcription Service   July 2024
Discord.js, Opus, ffmpeg, GPT-Whisper | Discord Bot   https://github.com/jonathanung/transcribr

- Built a bot to transcribe multi-channel voice meetings into text, leveraging ffmpeg and GPT-Whisper API
- Enabled real-time multi-channel voice recording for comprehensive meeting capture

Non-Technical Work Experience

Scheduling Manager, Kitchen Supervisor and Line Cook   August 2021 - December 2022
Katsu San - Richmond, BC

- Managed staff schedules, ensuring efficient kitchen operations and handling time-off requests
- Conducted training and quality control to maintain product standards and service quality

Education

B.Sc Computing Science   January 2024 - August 2027

- Simon Fraser University - Burnaby, BC

Computer Science Transfer   September 2021 - April 2022, April 2023 - December 2024

- Langara College - Vancouver, BC

Certificates

Full Stack Web Development Certificate   May 2022 - August 2022

- Coding Dojo (Colorado Technical University) - Colorado Springs, Colorado, USA (Remote)