Jonathan Ung

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Technical Skills

- **Machine Learning:** NumPy, PyTorch, Pandas
- **Front-End:** React, Next.js, Angular, Flask, Django, Spring MVC, SASS, jQuery, Flutter, Bootstrap, Tailwind
- **Back-End:** SQL (PostgreSQL, MySQL, SQLAlchemy, SQLite3), ORM, Express, MongoDB, JWT, FastAPI, Flask, Spring Boot, Bcrypt
- **Deployment:** AWS, Kubernetes, Docker, Git, CI/CD, InMotion Hosting, Cloudflare, SSL, Nginx, DigitalOcean, Defang
- **Languages:** Python, TypeScript, JavaScript, C++, C#, SQL, Java, GD Script, Dart, Bash, Perl, HTML, CSS
- **Miscellaneous:** QT6, Protobuf, MERN, JavaFX, Godot4, Unity, TensorFlow, Keras, Regex, Scripting, OOP, API, REST, WordPress, CMAKE, ROS

Technical Work Experience

Code Sensei   August 2023 - PRESENT
Code Ninjas - Richmond, BC
- Advised students as they progressed through their self-paced curriculum, aiding their growth
- Integrated technology into the curriculum in an engaging and memorable manner for children
- Learned the Unity game engine to aid students in the development of larger projects
- Created individualized tasks for students to complete on addition to curriculum to supplement their learning
- Aided in the deployment of a scalable NAS to store student project data

Software Engineering Intern   August - November 2022
MVP IT Solutions - Daytona Beach, FL, USA (Remote)
- Engineered functional, scalable, and reusable components in the Flutter framework
- Enhanced development plans during scrum agile development meetings
- Collaborated with senior developers to test and debug applications, reducing integrity errors
- Assisted in the development of models and controllers for the back-end
- Optimized API calls to the cloud-based database to reduce resource usage and cost

Technical Extracurricular Activities

Software Team Lead, C++ Software Developer   February 2024 - PRESENT
SFU Robot Soccer Club (Bandits FC) - Burnaby, BC | https://gitlab.com/sfurs
- Led the creation of network protocols to ensure important robot data is distributed quickly and reliably
- Integrated manual and automatic overrides to the software to assume control over the robot
- Managed a team of software developers to develop a Netmaster and Agent
- Created goals in conjunction with Firmware, Electronics and Mechanics team leads to progress the project
- Launched a new development structure to create a stronger team environment for development
- Leading the development of an autonomous, game-playing agent utilizing HFSMs

Vice President, Lead Hackathon Coordinator, Executive Advisor   April 2023 - April 2024
Langara Computer Science Club - Vancouver, BC
- Worked closely with the Computer Science, IT and Management Departments to fund and create Langara Hacks
- Led the creation of the inaugural Langara Hacks and managed a committee to ensure event quality
- Conducted interviews and selection during the Fall 2023 executive hiring process
- Created systems and protocols surrounding organizational standards for club tasks and meetings
- Ensured the delivery of consistent, high quality events through routine refinement and improvement

Technical Projects

ChronoCal - Web Application   August 2024 - PRESENT
MongoDB, Express.js, React.js, Node.js, GPT-4o | Full Stack Website | https://github.com/jonathanung/ChronoCal
- Engineered a calendar generator to create a unique two-dimensional array for the currently displayed month
- Implemented full CRUD functionality for users to easily personalize events and calendars
- Developed relations between events and calendars to allow for modular integration within the application
- Applied an expense attribute to allow easier tracking of finances
- Integrated sorting for events by time and calendars by creation

Sewjo - Web Application   SFU CMPT 276, May 2024 - August 2024
PostgreSQL, Spring Boot, Next.js, OCRSpace | Full Stack Website | Private Repository (https://github.com/niomedev/sewjo)
- Worked with FABCycle to create a Fabric and Pattern management app
- Managed user login securely using bcrypt and JWT
- Integrated OCRSpace API and Canvas modifications to extract the pattern data from parts of the image
- Created SQL relationships between a large range of tables within the database

Transcribr - Discord Bot   July 2024
Discord.js, Opus, ffmpeg, GPT-Whisper | Discord Bot | https://github.com/jonathanung/transcribr
- Developed a bot that transcribes voice channels into text using ffmpeg to process audio and GPT-Whisper API for transcription and summarization
- Implemented commands to start and stop recordings, which can be used by all members in an active channel
- Enhanced team collaboration by offering automatic transcription of meetings or voice discussions
- Incorporated multi-channel voice recording to capture discussions in real-time across different Discord channels

Shredded Wizards - PvP Game   StormHacks, May 2024
Godot4 Game Engine | Multiplayer Game | https://devpost.com/software/shredded-wizards
- Created a PvP 2D Fighting Game, with the ability to configure local or online multiplayer using sockets
- Developed functional game mechanics to ensure that player gameplay is fluid
- Created an item and ability selection system to create a dynamic gameplay experience

Non-Technical Work Experience

Scheduling Manager, Kitchen Supervisor and Line Cook   August 2021 - December 2022
Katsu San - Richmond, BC
- Created the weekly schedules for the kitchen staff and managed staff time-off and sick call requests
- Managed and supervised the kitchen on-site and conducted training of all new kitchen staff
- Worked closely with the restaurant owner to ensure the quality of the product was premium

Crew Member   June 2018 - August 2021
McDonald's - Richmond, BC
- Handled the cash register of the restaurant drive-thru with high-accuracy
- Delivered direct, prompt, and friendly customer service to the patrons of the restaurant
- Assisted other team members with completing duties to meet rigorous restaurant standards

Education

B.Sc Computing Science   January 2024 - PRESENT
- Simon Fraser University - Burnaby, BC

Computer Science Transfer   September 2021 - April 2022, April 2023 - December 2024
- Langara College - Vancouver, BC
- Awards: Dean's Honour Roll

Certificates

Full Stack Web Development Certificate   May 2022 - August 2022
- Coding Dojo (Colorado Technical University) - Colorado Springs, Colorado, USA (Remote)
- Awards: Highest Honor x3