

# Jonathan Ung

Vancouver, BC

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## Technical Skills

- Machine Learning: NumPy, PyTorch, Pandas
- Front-End: React, Next, Angular, Flask, Django, Spring MVC, SASS, jQuery, Flutter, Bootstrap, Tailwind
- Back-End: SQL(PostgreSQL, MySQL, SQLAlchemy, SQLite3), ORM, Express, MongoDB, JWT
- Deployment: AWS, Kubernetes, Docker, Git
- Languages: Python, Java, C/C++, C#, JavaScript, Bash, Perl, HTML, CSS
- Other: Regex, Scripting, OOP, API, REST, Bcrypt

## 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 HFMSMs

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