Nic Ung

Year 4, BSc. Computer Science Major

Driven and passionate developer based in Richmond BC with interests in embedded programming, self-hosting, and product development. I have built and shipped multiple products related Human Interface Devices. I am in my 4th year studying Computer Science at the University of British Columbia and am looking to diversify my skillset in other technical fields and team environments!

Technical Skills

Programming Languages: Java, C/C++, Python, OpenGL, JavaScript, TypeScript, HTML, CSS

Strategies: Object Oriented Programming, CI/CD, Data Structures, Algorithms, REST APIs, Relational Database, AGILE

Tools/Environment: GitHub, Bash, SQL, Docker, QEMU, VSCode, Intellij, Arduino IDE, Unraid, TrueNAS Scale, Wireguard, TailScale, OpnSense, CMake, OpenGL

Testing: GDB, JUnit, Valgrind

Web: Cloudflare DNS, Azure, AWS, Vercel

Technical Work Experience

Bastion Payment Systems Corporation   06/2023 – 09/2023
FinTech Developer Intern   *Philippines, Makati*
- Worked closely with senior management to develop and implement a business continuity plan in the event of a catastrophic event, improving availability and ability to offer greater terms of Service Level Agreement
- Coordinated with IT and operations teams to test, plan and begin deployment of mitigation systems.
- Collaborated with Software Engineers to build, abstract and test internal tools to be used during a crisis.

Projects

ESP23S3 Oil Pressure Gauge   01/2025 – 02/2025
- Designed a full product including chassis, mounts, circuitry based on an ESP32S3 Development board.
- Developed a flexible code base with intent for easy configuration and repurposing for different sensor types
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- Documented my development process to help show challenges I had faced and corresponding solutions.
- Skills: C++, PlatformIO, Arduino, Low Level programming

Just Parry   09/2024 – 12/2024
- Designed a fighting game prototype with a responsive and consistent input for players independently and with a team.
- Developed proficiency utilizing GLM, SDL, and CMake tools for matrix operations, audio/input handling, and cross-platform compatibility respectively.
- Created a custom game engine in order to have greater control over input processing
- Applied Agile methodologies for efficient development and project management.
- Utilized leadership and communication abilities to hold weekly scrum meetings, ensuring team alignment and progression.
  Skills: C++, OpenGL, Git, CMake

Discord Emote Adder Bot   07/2023
- An image processing bot that parses messages and adds user indicated images as emojis for the group it is invoked in.
- Utilized official Discord APIs via Discord.py library.
- Utilized python-dotenv libraries to define authentication keys outside of the source code.
- Extracted pointers to image included in trigger message.
- Implemented a space and time efficient way to process and compress images automatically.
- Hosted through Docker on my home server.
  Skills: Python, Open Source, Virtualization, Security

Volunteer Experience

UBC Esports Association   **08/2020 – Current**

Developer   *Vancouver, BC*

- Helped develop and deploy a custom lounge management web app for our PC Cafe
- Maintained website domain and hosting
- Actively engaged with code reviews and pair programming sessions

President

- Provided leadership and oversight to a large university club, including coordinating efforts from a team over 100 people.
- Liaised between club executives and university personnel to organize room bookings, event logistics, and administrative duties.
- Organized events with a large team handling various critical aspects, throughout the entire process of creation to facilitation of events with 300+ attendees.

Richmond Food Bank   **10/2019 – 03/2020**

Volunteer   *Richmond, BC*

- Sorted and packed food donations, stocked shelves, and distributed food to individuals and families in need.
- Worked collaboratively with other volunteers to manage the flow of food donations efficiently.
- Utilized conflict de-escalation techniques to manage and resolve conflicts.

Work Experience

Code Ninjas   **06/2024 – Present**

IT Advisor/Code Sensei   *Richmond, BC*

- Architected and deployed a robust, expandable and maintainable multifunctional server
- Provided live instruction of microcontrollers, AI Training, and Lua
- Assisted with children's education of the fundamentals of computer science

Richmond Christian School   **06/2022 – 08/2022**

Administrative Assistant   *Richmond, BC*

- Assisted in ensuring that all financial records were accurately maintained and up to date.
- Handled sensitive private financial and personal information.
- Managed small-scale logistics and aided with IT systems.

Board's Boards   **05/2020 – 03/2023**

Founder   *Richmond, BC*

- Founded and operated a small business selling controller modifications using 3D printed parts and varied microcontrollers
- Designed and manufactured items using CAD software and 3D printing.
- Self-managed finances and marketing to specific niches. Skills: Python, Open Source, Virtualization, Security

Education

University of British Columbia   **09/2020 – Present**

B.Sc Major in Computer Science with Co-op   *Vancouver, BC*

Certifications

Microsoft Certified: Azure Fundamentals   **01/2024**

AWS Cloud Practitioner Essentials   **02/2024**

Soft Skills & Interests

Software: Microsoft Office Suite, Google Suite, AutoCAD, KiCad, 3DSMax, Fusion360, Google Sketchup, Davinci Resolve, Notion, Sage50

Languages: Basic Mandarin, Basic French, Basic German

Work Style: Good Under Pressure, Time Sensitive Problem Solving, Troubleshooting, Systematic Approach

Interests: Emulation, Data/Media Preservation, 3D Printing, Car Tuning, Fitness, Weightlifting, Computer Building, Mechanical Keyboards, Ergonomics, Sim Racing, Martial Arts,

UBC Science Co-op

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