

# Nic Ung

Year 4, BSc. Computer Science Major

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## Technical Skills

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

**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

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## Technical Work Experience

### Bastion Payment Systems Corporation

**Jun. 2023– Sep. 2023**

*FinTech Business 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.

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## Projects

### ESP23S3 Oil Pressure Gauge

**Jan. 2025-Feb. 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
- Documented my development process to help show challenges I had faced and corresponding solutions.
- Skills: C++, PlatformIO, Arduino, Low Level programming

### Just Parry

**Sep. 2024-Dec. 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

**Jul. 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

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## Volunteer Experience

### UBC Esports Association

**Aug. 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

Oct. 2019 – Mar. 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.

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## Work Experience

### Code Ninjas

Jun. 2024 – Aug. 2024

#### 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

Jun. 2022 – Aug. 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

May 2020 – Mar. 2023

#### Founder

Richmond, BC

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

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## Education

### University of British Columbia

Sep. 2020 – Present

B.Sc Major in Computer Science with Co-op

Vancouver, BC

### Richmond Secondary School

Sep. 2016 – June. 2020

International Baccalaureate

Richmond, BC

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## Certifications

### Microsoft Certified: Azure Fundamentals

Jan. 2024

### AWS Cloud Practitioner Essentials

Feb. 2024

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## 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

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