

Junui Hong

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Summary

BSc Software Systems graduate from SFU with a strong foundation in C++ and backend systems. Transitioned into Full-stack development by mastering Next.js 16 and TypeScript, delivering real-world solutions for educational clients. A proactive learner and resilient problem-solver dedicated to scalable, high-performance applications.

Skills

Languages: TypeScript, JavaScript, Python, C/C++, SQL, Java, Rust, Haskell

Frontend: Next.js, React, Tailwind CSS, HTML5/CSS3

Backend: Node.js, Express.js, MongoDB (Mongoose), Spring Boot, gRPC, RESTful API, OpenAI API

Tools & Systems: Linux (Ubuntu/Debian), Git, Docker, CMake, Postman, GoogleTest, OpenCV

Projects

Doum Academy Platform | *Next.js, Express.js, MongoDB, TypeScript* | [GitHub](#) | [Link](#) **Nov 2025 – Present**

- **Real-world Impact:** Engineering a full-stack platform for a local academy to digitize curriculum management, translating complex client requirements into functional technical specifications
- **Self-Driven Stack Expansion:** Independently mastered **React and Next.js (App Router)** to bridge the gap between backend logic and modern frontend UX, achieving a fully responsive and optimized user interface
- **Architecture & API Design:** Developed a robust backend using **Express 5.2** and **Mongoose**, implementing secure **RESTful APIs** for dynamic content handling and automated email notifications via **Nodemailer**. Successfully managed evolving project scopes and client feedback cycles, ensuring code maintainability and scalability through strict **TypeScript** implementation

Social Gaming Platform | *C++, WebSocket++, GoogleTest, CMake* | [GitHub](#) **Sep 2024 – Dec 2024**

- **Agile Leadership:** Led a 7-person team as **Scrum Master**, overseeing sprint planning, task delegation, and conducting technical code reviews to ensure architectural consistency
- **System Engineering:** Built a high-concurrency multiplayer server using **WebSocket++**, implementing real-time state synchronization and spectator broadcasting logic
- **Quality Assurance:** Integrated **GoogleTest** for automated unit testing, achieving comprehensive coverage of rule-based edge cases and reducing post-deployment bugs

Discord Bot | *Python, OpenAI API, FFmpeg* | [GitHub](#) **Jun 2025 – Aug 2025**

- **Scalable Design:** Architected a modular system using **discord.py Cogs**, utilizing custom decorators and dynamic command registration for improved code reusability
- **Feature Integration:** Leveraged **OpenAI API** for NLP-driven interactions and utilized **asyncio** for non-blocking music streaming and media processing

Education

Simon Fraser University **May 2022 – Apr 2025**

BSc in Computing Science – Software Systems, Dean's List (2 semesters)

Industry Experience

STEM Tutor & Coding Instructor | *The Doum Academy* **Jan 2022 – Present**

- **Academic Excellence:** Delivered high-level instruction in advanced STEM subjects, including Calculus, Physics 11/12, and Pre-Calculus 11/12; maintained a 95%+ class average, demonstrating exceptional analytical and quantitative reasoning skills
- **CS Mentorship:** Provided technical guidance for **University-level coding courses** and Programming 11/12, mentoring students in fundamental data structures, algorithms, and logic building
- **Problem Identification:** Leveraged 4 years of frontline experience to identify operational bottlenecks, serving as the primary catalyst for independently developing the academy's management platform.

Technical Assistant | *DAEWON Info & Comm Corp. (South Korea)* **May 2020 – Apr 2021**

- **System Troubleshooting:** Resolved 50+ weekly network and hardware issues for university workstations, ensuring zero downtime for academic operations through proactive maintenance

Other Experience / Leadership

Artillery Signal Operator | *Republic of Korea Army (Sergeant)* **Jun 2018 – Mar 2020**

- **Leadership & Problem Solving:** Commanded a 10-member squad, managing secure communication protocols and awarded **2nd place** in a **brigade-level emergency restoration competition**.