







# Juheon (John) Chu

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## EDUCATION

### Dickinson College

Bachelor of Science in **Computer Science and Mathematics**

Carlisle, PA, USA

Expected December 2023

**Cumulative GPA:** 3.79/4.0; **Major GPA (Computer Science):** 3.95/4.00

**Relevant Courses:** Analysis of Algorithms, Operating Systems, Data Structure and Algorithms, Computing Abstractions, Computability and Complexity, Database Systems, Operations Research, Real/Complex Analysis, Abstract Algebra

### Honors & Awards

- **The Forrest E. Craver Memorial Prize in Mathematics:** Awarded to a junior student exceling in mathematics
- Dean's List: All Semesters

## WORK EXPERIENCE

### Reeplayer

Software Engineer Intern

Culver City, California

May 2022 – August 2022

- Launched 4 state-of-the-art video resolution services by providing NVIDIA Maxine API to provide AI visual effects.
- Reduced video camera noise by 80% and encoding artifacts by 55% with CUDA C/C++ to provide end-user utilities.
- Improved code coverage from 60% to 80% by modularizing Data Access Objects in Junit tests for camera functionalities.
- Contributed to redesigning the brochure site utilizing 4 AWS Services (EC 2 Instance, Cognito, Lambda, RDS).

### DNB Prema

Full-Stack Software Engineer Intern

Goyang-si, South Korea

- Accelerated customer retention by 30% by designing a user-friendly DNB brochure site with JSP, HTML, CSS, and JS.
- Revamped working process to save 8+ hours per week by modularizing program codes with Spring MVC framework.
- Developed and maintained 40+ backend end user services of websites managing 6+ databases in MySQL workbench.

## RESEARCH EXPERIENCE

### Assigning Students to First Year Seminar (FYS)

May 2022 – Present

- Authored automated Python program with Gurobi solver to assign 660+ Dickinson freshmen to 42+ FYS courses.
- Balanced gender and international student ratios by 85% in FYS classes maintaining 16+ course capacities.
- Collaborated with Prof. Forrester in Dickinson to improve current algorithm by applying Hungarian method, improving runtime by 28%.

## PROJECTS

Pokemon Database (Java, HTML/CSS) [<https://github.com/JuheonChu/pokemonDB>]

- Built user-friendly website to interact with 6 data sets and represent relational details of 230+ Pokemon features.
- Implemented MySQL and JDBC to construct 6 Data Access Objects and connect to 20+ backend services using JSP Servlet.

Operating System (OS) Kernel [<https://github.com/JuheonChu/OS-kernel>]

- Demonstrated 16-bit operating system capable of concurrent execution of 8+ open source OS prompt commands.
- Employed Low C/C++ and Bash to construct file I/O system and establish pipeline to link 4+ software to disk image.

The One Korea [<https://github.com/JuheonChu/theOne>]

- Created responsive franchise-launch website with JS and HTML/CSS to assign unique URL across 2 franchise brands.
- Implemented 16 UX/UI services for admin, franchisees, and customers by connecting Datasource beans to MySQL server.
- Collaborated with 2 students to operate 500+ JSP files with Spring MVC framework, improving UX by 45%.

Nike Model Design [<https://github.com/JuheonChu/nikePractice>]

- Designed online shopping mall capable of 8+ UX services to serve as an example of NIKE with JSP and HTML/CSS.
- Performed MySQL, JS, jQuery, AJAX and JSP Servlet to fetch 700+ product and service data from 40+ HTTP web server.

## LANGUAGE & SOFTWARE

### Programming Languages:

Java, C/C++, Python, JavaScript, SQL, HTML5, CSS, CUDA

### Software & Framework:

AWS, React, Node.js, Github, Linux, jQuery, JSP, Spring MVC, Docker, Kubernetes