Juheon (John) Chu

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EDUCATION

Dickinson College **Carlisle, PA, USA**
Bachelor of Science in **Computer Science and Mathematics** Expected February 2024
Cumulative GPA: 3.79/4.0; *Major GPA (Computer Science)*: 3.95/4.00
Relevant Courses: Data Structures & Problem-Solving, Computing Abstractions, Computability/Complexity, Database Systems, Data Mining, Large-Scale Open Source Software Development, Analysis of Algorithms, Operating Systems

Honors & Awards

- The Forrest E. Craver Memorial Prize in Mathematics: Awarded to a junior student exceling in mathematics

SKILLS

Programming Languages: Java, C/C++, Python, JavaScript (Node.js & React), SQL, HTML5, CSS, CUDA
Software & Framework: AWS, Linux, jQuery, JSP, Spring, Docker, NVIDIA, PyTorch, TensorFlow

WORK EXPERIENCE

Reeplayer **Culver City, California**
Software Engineer Intern **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 **Goyang-si, South Korea**
Full-Stack Software Engineer Intern

- 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.
- Designed a user-friendly brochure site utilizing HTML, CSS, and Javascript, resulting in 15% increase in monthly profits.

RESEARCH EXPERIENCE

Automated Program for Dickinson First Year Seminar (FYS) Assignment **May 2022 – Present**

- Authored automated Python program with Gurobi solver to assign 660+ Dickinson freshmen to 42+ seminars.
- Balanced gender and international student ratios by 85% in FYS classes maintaining 16+ course capacities.
- Collaborated with Prof. Forrester in Dickinson to run multi-objective convex quadratic model in 2 minutes.

PROJECTS

Hugging's Transformers [https://github.com/JuheonChu/transformers]

- Deployed Sentiment Analysis Model to facilitate learning Natural Language Processing extracting Hugging Face library.
- Posed 3 suspects on the issues in hugging's transformer GitHub Issue Tracker that are not actually software defects.

Pokemon Database [*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.

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.