

Hyun (Ray) Kong

Available May – Dec 2024

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EDUCATION

Northeastern University | Khoury College of Computer Sciences

Sept 2022 – Present

Candidate for a Bachelor of Science in Computer Science and Game Development, 2026

Boston, MA

GPA: 3.5/4.0

Relevant Courses: Object-Oriented Design, Algorithms and Data, Programming in C++, Networks And Distributed Systems, Database Design, Game Artificial Intelligence, Rapid Idea Prototyping for Games, Foundations of Game Design, Game Concept Development

SKILLS

Programming Languages: Java, C#, C++, CMake, JavaScript, TypeScript, Python, SQL, Swift, Racket, LaTeX

Speaking Languages: Fluent in English and Korean, conversant in Japanese

Framework: React, Next.js, Tailwind CSS, Node.js, Prisma, MongoDB, Mongoose, JUnit, JavaFX, Make, Gradle, Vite

Software: Linux, Git, Unity, Unreal Engine, Docker, VS Code, Eclipse, JetBrains Suite, Adobe Creative Suite

EXPERIENCE

Web Developer | Northeastern Science Magazine | Boston, MA

Sept 2023 – Present

- Developing a CMS for 30+ users to consolidate magazine production across design, writing, and photography teams, while also producing a web app for archiving and distributing a collection of 100+ student-authored scientific articles
- Establishing schema validation on POST requests through the Mongoose wrapper library, securing data entry into MongoDB
- Designed more efficient database schema, decreasing required MongoDB storage space by 12%

Teaching Assistant for Object-Oriented Design | Northeastern University | Boston, MA

Aug 2023 – Dec 2023

- Contributed to the improvement of student performance by 17%, facilitating 12 lab sessions to reinforce course material
- Graded 35+ assignments and projects each week, investing 15+ hours to provide timely feedback to 400 students
- Collaborated with 30+ teaching staff members to conduct exam review sessions and office hours 3 times a week

Full Stack Software Developer | Northeastern Electric Racing | Boston, MA

Jan 2023 – June 2023

- Integrated Slack into FinishLine, a project management application using React and TypeScript, boosting team communication efficiency and enhancing platform robustness, benefiting over 200 users
- Facilitated effective team coordination among a 50+ member team and project alignment through over 10 hours of weekly communication, significantly improving team efficiency in stand-ups and sprint planning

Quality Assurance | Wellbia.Co., Ltd | Seoul, South Korea

June 2020 – Aug 2020

- Created 14 test cases and verified iOS revisions, ensuring robust game anti-cheat software for 272 companies across the world
- Contributed to improved operational efficiency through an in-depth study of quality assurance processes
- Collaborated with cross-functional teams to identify and resolve software vulnerabilities, enhancing product reliability

PROJECTS

Graph Algorithm Visualizer 

Dec 2023 – Present

- Implementing the strategy pattern and inheritance to enable dynamic switching between algorithms, enhancing code flexibility
- Developing an educational website using React, Vite, and Tailwind CSS to help students and developers grasp algorithmic concepts, featuring interactive visualizations of graph algorithms like Ford-Fulkerson, Bellman-Ford, and Dijkstra's
- Demonstrating algorithm line-by-line, utilizing cytoscape.js and code block library for a comprehensive learning experience

Music Recommendation Program 

Nov 2023 – Present

- Developing a C++ music recommendation program using Aubio, Glaze, and CPR libraries, with Spotify API integration
- Implementing algorithms for personalized music recommendations based on categories such as genre, artist, and user preferences, including a custom-built metadata parser for enhanced analysis and categorization of music files
- Engineering recursive directory search for audio files, optimizing the system's ability to quickly process a vast music library

Empty Echo 

June 2023 – Aug 2023

- Developed a space-themed horror game in Unity3D with a zero-gravity environment with realistic space simulation
- Yielded a 30% increase in players' 'frightened' reactions post-quality assurance by leading quality assurance through neurological testing devices such as EEG and heart monitor technology
- Resulted in a 40% improvement in responses in subsequent prototypes by creating and analyzing detailed feedback surveys

Battle Salvo 

June 2023

- Designed a variant of the Battleship game, utilizing MVC pattern and SOLID principles, promoting modularity of the program
- Enhanced user engagement and game complexity by engineering an AI opponent to simulate strategic gameplay in a CLI
- Orchestrated and structured a client-server network architecture using TCP/IP Sockets and a JSON-based protocol