Haruki Gonai

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EDUCATION

Columbia University, School of Engineering and Applied Science — New York, NY
B.S. in Computer Science — Fall 2019 - Spring 2023

- Cumulative GPA: 4.21/4.00
- Honors: *summa cum laude*, Tau Beta Pi, Max Yablick Memorial Scholarship, Andrew P. Kosoresow Memorial Award for Excellence in Teaching and Service
- Relevant Coursework: Operating Systems, Distributed Systems, Database Systems, Computer Networks

EXPERIENCE

Amazon Web Services (AWS) — New York, NY
Software Development Engineer Intern — May 2022 - Aug. 2022

- Designed and implemented a new system architecture that improves call center operations by providing automatic, real-time recommendations to support call center agents.
- Collaborated with engineers using cutting-edge technologies such as Kotlin, Python, NoSQL databases, and event-driven, serverless computing.
- Authored and presented comprehensive documentation to facilitate seamless comprehension of the system architecture among team members.

Sonar Health — New York, NY
Software Engineer Intern — June 2021 - Nov. 2021

- Spearheaded the development of over 20 web pages using React.js, JavaScript, HTML, and CSS to deliver high-quality, responsive user interfaces.
- Conducted thorough code reviews for over 30 web pages, offering constructive feedback and implementing best practices to enhance code quality, maintainability, and adherence to proper coding standards.
- Reviewed pull requests on GitHub to ensure the codebase is up-to-date, while identifying and resolving any potential bugs or issues.

PROJECTS

Ball 3D — github.com/harukigonai/ball_3d

- Developed a 3D, first-person, online multiplayer dodgeball game.
- Designed and built interactive user interfaces using React.js to enhance the player experience.
- Utilized Three.js to create immersive 3D environments, realistic ball physics, and dynamic lighting effects.
- Implemented server-side logic and real-time communication using Node.js and WebSockets.

Mancala.ai — github.com/harukigonai/mancala.ai

- Utilized TensorFlow, Keras, and Python to develop an AI bot that leverages reinforcement learning techniques to achieve expert-level gameplay in Mancala.
- Implemented a cutting-edge Monte-Carlo Tree Search algorithm inspired by Google's AlphaGo Zero, enabling the bot to make optimal moves and continuously improve its gameplay strategies.

TECHNICAL SKILLS

Languages Java, C/C++, Python, Kotlin, JavaScript, TypeScript, Go
Other Git, React.js, CSS, HTML, Flask, Node.js, MongoDB, SQL