Rio Shintani

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EDUCATION

University of Washington   Expected: June 2028
B.S. in Informatics; GPA: 3.7

TECHNICAL SKILLS

Languages: Python, Java, C++, Javascript, SQL, HTML
Frameworks**:** PyTorch, TensorFlow, Pandas, Keras, Scikit-learn, NumPy, Matplotlib, LangChain
Technologies: Git, Github, Hugging Face, Visual Studio Code, Vim, Firebase

EXPERIENCE

Character Recognition Research | Research   March 2025 - Present
- Researched character recognition in comics, improved upon current recognition methods increasing accuracy from **63.4% to 67.4% and surpassing University of Tokyo's** previous benchmark.
- Engineered and optimized deep learning models for comics character recognition using CNN/Transformer architectures, applying software engineering best practices and engineering principles.

MangaAI | Founder   March 2025 - Present
- Designed and implemented an AI-powered platform to convert manga into video, providing technical guidance and oversight to ensure adherence to engineering principles.
- Trained models on custom dataset of **5000+ characters,** applying machine learning techniques to obtain **85% accuracy** on character recognition, surpassing typical benchmarks in manga character recognition.
- Automated continent generation pipeline including posting results on social media to gain over **10,000 interactions,** and 1million+ views.
- Implemented machine learning models to optimize descriptions and titles for better video reach.

CSE 122 Teaching Assistant | Instructor   September 2025 - Present
- Instructed programming to students in Java, going over core computer science concepts and ideas.
- Developed code static analysis tools used to decrease workload for 90+ other TAs.

PROJECTS

VidGenAI | Founder   June 2025 - Present
- Achieved over **1 million views** and **25,000+ interactions** on social media, by developing a full pipeline video generation platform using Python, addressing the need for **automated content generation.**
- Engineered AI algorithms to improve product quality and enhance decision-making capabilities. Developed data preprocessing, model training, and inference, architectures such as **transformer networks** and GANs to automate the entire process including storyboard generation, object tracking, and audio narration.

Tetris Game Automation   January 2024 - Present
- Designed and built a Tetris bot capable of running **100 simultaneous instances** using multithreading, optimizing gameplay through reinforcement learning techniques.
- Engineered the bot to play autonomously for more than one hour, leveraging genetic algorithms to continuously improve its performance.

AWARDS

Japanese Olympiad in Informatics | National Qualifier   February 2024
- Competed in Japanese Informatics Olympiad placing in the **95th percentile out of 3000+**
- Applied computer science and data structures knowledge, using algorithms such as DFS, Segment Tree, Kosaraju's, and Union Find to solve competitive programming questions in Python and C++

Additional Information

Extracurriculars**:** Delta Sigma Pi, Pi Kappa Phi