

# Jonghyun Park

☎ (858) 766-1655 | ✉ [jhp006@ucsd.edu](mailto:jhp006@ucsd.edu) | [🌐 LinkedIn](#) | [🐙 GitHub](#) | [📁 Portfolio](#)

Software engineer interested in scalable and innovative machine learning applications.

## Education

---

University of California, San Diego – *MS* in Computer Science (GPA: 4.0) Sep 2024 – Present

- Concentration in Artificial Intelligence / Expected March 2026
- Relevant Courseworks: Graduate Algorithms • Probabilistic Reasoning • Deep Learning • Computer Architecture • Operating Systems • Compilers • Online Database Analytics • Computer Security

University of California, San Diego – *BS* in Computer Science (GPA: 3.93) Sep 2019 – Jun 2024

## Skills

---

**Programming:** Python, Java, C/C++, C#, JavaScript, HTML, Swift, SQL, LaTeX, R

**Frameworks/Libraries:** Pytorch, Tensorflow, Scikit-learn, Selenium, Node.js, Next.js, CUDA

**Technologies:** Git, DigitalOcean, RStudio, Docker, MySQL, Android Studio, Unity

## Experience

---

UCSD Spatiotemporal Lab – *Graduate Researcher* Jun 2024 – Present

- Develop a framework for **local symmetry discovery** in Lie basis for extensions of equivariant network capabilities.
- Study how symmetry within dataset can optimize neural network models and submitted a paper to ICLR.

UCSD – *Instructional Assistant* Sep 2023 – Present

- Principles of Operating Systems (Fall 23, Winter 24, Fall 24): Conduct **7-10 hours** of office hours a week to help students with implementing Nachos OS using Java. Run weekly discussions sections with ~15 students.
- Components & Design for Digital Systems (Summer 24): Offer both one-on-one and small group tutor sessions to give guidance on mathematical concepts. Graded daily workbooks for **50 students**.

Gyeongsang National University – *Research Assistant* Jun 2023 – Sep 2023

- Developed **Python scripts** to process block I/O traces and collected necessary features that define individual traces.
- Assisted in developing a general approach when analyzing the performances of different SSDs using I/O performance results (e.g., throughput, latency).

Republic of Korea Army – *Staff Sergeant, Squad Leader* May 2021 – Nov 2022

- Led a squad of 6 signal soldiers to install and manage a stable wartime electronic telecommunication system.
- Managed **5** different server/databases used for maintaining all landline phone calls and preservation of confidential data.

## Projects

---

Wrath of Zeus | C++, Boost Asio, GLFW, CMake [cse125g3/wrath-of-zeus/](https://github.com/cse125g3/wrath-of-zeus/)

- Worked in a team of 7 to create a distributed, real-time, 3D, multiplayer 3v1 asymmetric maze escape game.
- Created enemy pathing and attack patterns, designed the main UI throughout the game, and co-implemented Zeus.

Tetris with Reinforcement Learning | Python, Pytorch, Pygame [jhparkt/tetris\\_rl](https://github.com/jhparkt/tetris_rl)

- Implemented deep Q-learning algorithm to allow the agent to self-learn and play tetris with an hour of training.

Yelp Rating Predictor | Python, Scikit-learn, Wordcloud [jhparkt/YelpPredictor](https://github.com/jhparkt/YelpPredictor)

- Used open-source Yelp dataset to predict Yelp rating for better understanding of businesses.
- Utilized SciKit-learn library to implement various models for prediction, including linear models and random forest model.

Multiple QR Code Reader | Python, Java, Zbar, Android Studio

- Developed an algorithm using Python to automate the process of reading multiple QR codes within a single picture.
- Reading of multiple QR Code allowed further automation in parcel services, allowing up to **28%** faster processing speed.