Jiyoung (Paulina) Lee

San Francisco, California · paulinalee@uni.minerva.edu · linkedin.com/in/jynglee/ · github.com/paulinajyl

Education

Minerva University — San Francisco, CA *Expected May 2025*

B.S. Computer Science/Chemistry

- Relevant courses: Statistical Mechanics, Optimization Methods, Probability & Statistics, Physics, Calculus, Linear Algebra, Data Structures and Algorithms, Machine Learning, Analytical and Numerical Methods with Differential equations, Analytical Chemistry

Skills/Certifications

- Codepath: Intro to Web Development (Sep 2023 - Nov 2023)
- Kaggle: Intro to Machine Learning, Intermediate Machine Learning
- Python; SQL; Bash/Linux; HTML/CSS; Javascript

Experiences

Torcuato Di Tella University — Neuroscience Lab Intern | *Buenos Aires, Argentina* Oct 2023 - Dec 2023

- Randomized trials for a cognitive training game (Mate Marote) using Python while utilizing **matrices** and **arrays** to increase game variety and user retention
- Researched dynamic game difficulty balancing using deep reinforcement learning

KAIST — Computational Photodynamics Lab Intern | *Daejeon, South Korea* Jun 2023 - Aug 2023

- Developed a **Python** simulation program for harmonic oscillation of diatomic molecular bonds using numerical and analytical methods (Velocity Verlet)
- Automated 100 GROMACS commands by creating **Bash shell script**, increasing workflow efficiency and reducing manual labor
- **Extracted and cleaned data** from extensive molecular dynamics simulations, encompassing over 11,000,000 data points, allowing for easier data manipulation for plotting

National Taiwan University — Organic Synthesis Technical Lab Intern | *Taipei, Taiwan* Oct 2022 - Dec 2022

- Practiced technical wet lab skills **meticulously**: Purifying compounds; dry and wet packing, using the rotary, using TLC to check organic compound's presence
- Prepped for each wet lab with formatted writeups from supervisor

Projects

Sentiment Analysis on Journal Entries — Python Jan 2024 - Apr 2024

- Cleaning, and processing data using pandas and numpy and splitting data into training, testing and validation sets
- Building and exploring different models (XGBoost, RandomForest, SVM, etc.) for NLP from scikitlearn, keras and tensorflow

Pomoduck — HTML/CSS/Javascript/Figma Sep 2023 - Nov 2023

- Building a website to promote healthier habit-building using the Pomodoro method

Fast Food Exploratory Data Analysis — Python Oct 2023

- Cleaning data (consistency with data types) using pandas and numpy
- Creating histograms with descriptive statistics (mean) and inferencing meaning

Volunteering

Weekly science classes for refugee children — *Event Coordinator/Manager* Nov 2019 - April 2020

- Coordinated with a group of 4 peers to create comprehensive lesson plans for children aged 6-14
- Established a successful partnership with Penang Peace Learning Centre to coordinate transportation logistics, promoting equitable access to educational opportunities

Penang International Science Fair — *Workshop Coordinator/Manager* Oct 2019 - Nov 2019

- Led a dynamic physics workshop at Spice Arena with a 14-member team, engaging over 400 children aged 6-13, breaking down the concept of density into simpler terms and conducting practical experiments to boost understanding
- Won the 'Best Workshop' in the judges category.