Jack Lim

Jklim@ucsd.edu | (619)509-3136 | linkedin.com/in/jklim3/ | github.com/jackljk | Portfolio - jackljk.github.io/

EDUCATION

Bachelor of Science in Data Science | Minor in Math   Expected Graduation: Dec. 2024
University of California, San Diego (UCSD)**, GPA:3.821   8/9 Qtrs Provost Honors & Honors in Mathematics

PROFESSIONAL & INTERNSHIP EXPERIENCES

Research Assistant | School of Global Policy & Strategy | San Diego, CA   *Feb 2024 - Present*
- Investigating and researching the effects of social factors on Solar PV Projects in the United States.
- Researching on the use of Machine and Deep Learning techniques to perform Sentiment Analysis on Social Media NIMBY (Not In My BackYard) using Hugging Face.
- Performed statistical correlation, regression tests and robustness checks to identify and validate potential causes.

Data Science Intern | Center For Community Energy | San Diego, CA   *Feb 2023-Sep 2023*
- Designed and constructed an application to visualize an isochrone map using TravelTimeAPI, depicting the accessible distances achievable from public transportation in San Diego, via walking, biking or using an E-bike.
- Prepared data for a large Mail Merge initiative, encouraging solar panel installation for sustainable energy.

RESEARCH

ClimateBench | Self-Research (Mentor - Duncan Watson-Parris)   *Apr 2024 - Present*
- Research focused on enhancing climate models through the use of Machine Learning methods
- Developing and implementing a Diffusion Model in Pytorch, to generate Climate Samples for Climate Emulation
- Engineering a Deep Learning-based Climate Emulator using Neural Processes, achieving CNN-like spatial and temporal resolution while preserving the predictive strengths of a probabilistic approach.

RELEVANT PROJECTS

Deep Learning for Climate Model Emulation | UCSD Senior Project   *Sep 2023 - Apr 2024*
- Developed a Deep Kernel Learning in TensorFlow, exceeding standard benchmarks from the original paper.
- Produced a report and website to document results and interestings findings - Website

Task Manager App with Gemini AI | AI App Development   *Jan 2024 - Present*
- Developed a Task Management App, which utilizes Google's Gemini AI to enhance and streamline task creation, resulting in a more intuitive user experience. Github to Code - Devpost
- IOS App developed using Flutter Frontend, Python Backend (Flask) with MongoDB integration.

Food Nutrition App Project Lead | Machine/Deep Learning Project   *Jan 2023 - May 2024*
- Led the development of an iOS mobile app to accurately identify food objects from images.
- Built and trained a YOLOv8 Machine Learning model on a large dataset of food images.
- Developed a Python REST API backend and connected it to an iOS app written in Swift, facilitating seamless image recognition and nutritional value prediction. Github to Code

TECHNICAL SKILLS

Programming Languages- Python, Javascript, SQL   **Tools-** Pytorch, Scikit-Learn, Tensorflow, Dask
Languages - Mandarin, Malay, Taiwanese, Japanese   **Others -** Git, Github, LaTex, AWS

CAMPUS LEADERSHIP

Vice President External | UCSD Data Science Student Society   *Apr 2023 - June 2024*
- Led outreach efforts that resulted in 2 new organization sponsors/partners.
- In charge of planning collaborations events with external entities such as ASML, Tech San diego, Palantir
- Co-Director of annual Hackathon, Datahacks 2024 with 200 attendees.

Treasurer | UCSD Club Swim   *May 2023 - June 2024*
- Manage club finances, focusing on keeping expenses within budget while tracking all expenditures and income.
- One of three captains, collectively steering and maintaining a competitive and safe environment for the team.
- Managed and led a team of 30+ people to College Club Swimming National Championship 23 & 24.