Rachel Lin

Research Apprentice at UC Berkeley Cognition and Action Lab & UC Berkeley Tech of One's Own
raelin@berkeley.edu | (510) 289-2883 | https://www.linkedin.com/in/raelin15/ | https://raelindesign.com/

EDUCATION

University of California, Berkeley Expected Graduation: May 2024
B.A. in Computer Science & Data Science | GPA: 3.83 | Potential Master's in Computer Science Student

- Relevant Coursework: Machine Learning, Data Structures & Algorithms, Data Science, Data Engineering, Computer & Machine Architecture, Discrete Math & Probability Theory, Linear Algebra, Web & HCD

RELATED EXPERIENCE

OmniVision Technologies | Santa Clara, CA May 2022 - Aug 2022
Data Algorithm Intern

- Created 15 hyper-realistic LED light simulations and their corresponding binary map for automotive settings, including car and traffic lights, utilizing Blender software to generate virtual animations.
- Engineered a fully connected neural network using PyTorch and OpenCV, achieving ~91% accuracy in identifying LED light sources within the testing simulation data.
- Authored a comprehensive documentation for the Blender simulations, providing users with valuable insights, practical tips, and strategic solutions for resolving common errors and creating new scenes.

UC Berkeley Tech of One's Own (to3) | Berkeley, CA Aug 2023 - Present
Undergraduate Research Apprentice, supervised by Dr. Niloufar Salehi

- Code developing reliable machine translation systems for healthcare, employing a predefined neural translation model for similarity search to notify users on accurate and relevant translations.
- Utilizing Svelte to create an interactive text editor for users (physicians), providing insights into the percentage of tokens aligning with the output or proposing templates that match similar input text.
- Enabling users to create precise input translations and delivering feedback on the quality of the translation based on metrics like utilization and coverage.

UC Berkeley Cognition and Action Lab | Berkeley, CA May 2023 - Present
Undergraduate Research Apprentice, supervised by Professor Richard B. Ivry

- Designing a dynamic predator-prey nonstationary reinforcement model orchestrating prey movements based on prior predator locations, acceleration, and velocity, merging it with a Kinarm (robotic arm) interface.
- Investigating the manipulation of mental representations by comparing the strategies employed by cerebellar patients and control groups in capturing the coded prey, visualizing path per timestep with Matplotlib.
- Implemented a reach and reward system to organize and gather MoCA & CCAS data from UC Berkeley's extensive patient testing database, encompassing 1500 participants.

Eximlabs [startup] | Fremont, CA May 2023 - Aug 2023
UX/UI Designer

- Collaborated with a cross-functional team to define an optimal color scheme and font for the UI interface.
- Co-designed interactive high fidelity mockups for Eximlabs' custom brokerage interfaces using Figma, ensuring a cohesive design and user experience to interest potential investors for fundraising efforts.
- Participated in ideation sessions to develop user-friendly and intuitive user flows, working closely with product managers to align with project goals.

PROJECTS

Gitlet | Java

- Designed and built a version-control system modeled after Git which allows users to track & commit file changes, revert to previous versions, create & merge branches, and implement remote features.
- Set up persistence using Java's File class and used SHA1 hashes to keep track of files.

SKILLS

Programming Languages: Python, Java, C, SQL, RISC-V, PostgreSQL, HTML, CSS, JavaScript, Svelte, Bash
Libraries & Platforms: Pandas, NumPy, Matplotlib, Jupyter Notebook, PyTorch, Scikit-learn, Seaborn, Figma
Languages: English (fluent), Mandarin (fluent)