Rachel Lin

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EDUCATION

University of California, Berkeley   Expected Graduation: May 2024
B.A. in Computer Science & Data Science | GPA: 3.83
- 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 more reliable machine translation systems for healthcare, primarily using representations from a neural translation model for similarity search to notify users on accurate translations.
- Utilizing Svelte and token-level nearest neighbors to create an interactive text editor for users that offer insights into the translation's relevance and the percentage of tokens aligning with the output. In cases of low relevance, the interface suggests alternative phrasing that closely aligns to the source data.

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 their movements based on mutual prior locations and center boundary bias, merging it with a Kinarm (robotic arm) interface.
- Investigating the neural mechanisms underlying predictive pursuit through observing how coded prey evaded human predators, 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, HTML, CSS, JavaScript, Svelte
Libraries & Platforms: Pandas, NumPy, Matplotlib, VS Code, PyTorch, Scikit-learn, Figma, Blender
Languages: English (fluent), Mandarin (fluent)