JASON CHAN

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EDUCATION

University of California, Los Angeles (UCLA) — **Los Angeles, CA**
Computer Science B.S — *Expected June 2026*

HONORS & AWARDS

- Best Overall Presentation/Paper, International Young Researcher's Conference (2021)
- Sensei of the Year, Code Ninjas (2022)

EXPERIENCE

Neural Engineering and Computation Lab, UCLA — **Los Angeles, CA**
Undergraduate Machine Learning Researcher — *June 2023 - Present*

- Integrated neural network-based EEG signal decoding with a Nintendo Switch to enable brain-controlled gameplay in Mario Kart
- Engineered an internal load-balancing pipeline to optimize model training on 4 local and remote GPUs decreasing system latency by 400%
- Investigating the impact of Fast Fourier Transform preprocessing on EEG data as an input layer for EEGNet neural network architecture

Ionis Pharmaceuticals — **Carlsbad, CA**
Data Science Intern — *June 2022 - August 2022*

- Leveraged computational framework, cell2cell, as well as Pandas, NumPy, and NetworkX to predict 100+ protein-protein interactions in non-alcoholic fatty liver disease
- Screened ~15 potential drugs' effect on ligand-receptor interactions which led to analysis being implemented for future projects
- Employed hierarchical clustering and dimensionality reduction techniques such as UMAP to determine scRNA-seq similarity

Department of Biomedical Informatics, UCSD — **San Diego, CA**
Full-stack Software Engineering Intern — *June 2020 - February 2021*

- Developed blockchain prototype for tracking COVID-19 questions across 12 universities and hospitals
- Created back-end smart contract using Solidity in order to store 9,000+ queries leading to a 3.5 times faster solution than baseline
- Spearheaded development of a front-end graphical user interface using Java to allow for increased accessibility

ACTIVITIES

Nova, Tech for Good — **UCLA**
External Vice President, Project lead, Developer — *November 2022 - Present*

- Led a cross-functional team of 11 developers, designers, and business strategists to create an internal reimbursement application for CoachArt, a non-profit organization, improving operational efficiency for 2,400+ volunteers
- Developed a comprehensive 15 page React-based web application for UCLA's Blood and Platelet center, enabling the organization of club blood drives
- Directed a club of 30 members to initiate outreach to 40 non-profits, securing collaborations with 4 organizations to provide pro-bono technical solutions

Association of Computing Machinery (ACM) at UCLA — **UCLA**
External Affairs Director — *November 2022 - March 2024*

- Organized Computer Science welcome day in collaboration with the CS department and 6 student organizations for 200+ freshmen which consisted of presenting, hosting a student Q&A panel, and a mixer with CS professors.
- Executed six CS department-wide events to serve as forums for networking and fostering community; responsibilities include room booking, submitting purchase orders for food, and marketing events to 2,500+ students

SKILLS

- Javascript, Typescript, React.js, Node.js, React Native, MongoDB, Firebase, Git, Shell scripting, Regular Expressions, Lisp, OpenMP, Python (NumPy, pandas, Matplotlib), scikit-learn, PyTorch, Java, C++, HTML, CSS

PUBLICATIONS

Armingol E, Ghaddar A, Joshi CJ, Baghdassarian H, Shamie I, **Chan J**, et al. (2022) Inferring a spatial code of cell-cell interactions across a whole animal body. PLoS Comput Biol 18(11): e1010715. https://doi.org/10.1371/journal.pcbi.1010715

Chan J. Classifying allergic rhinitis subjects and identifying single nucleotide polymorphisms using a support vector machine approach. 2021. https://doi.org/10.34614/iyrc0040

Tsung-Ting Kuo, Anh Pham, Maxim E Edelson, Jihoon Kim, **Jason Chan**, Yash Gupta, Lucila Ohno-Machado, The R2D2 Consortium, Blockchain-enabled immutable, distributed, and highly available clinical research activity logging system for federated COVID-19 data analysis from multiple institutions, Journal of the American Medical Informatics Association, 2023;, ocad049, https://doi.org/10.1093/jamia/ocad049