

Henry Hong

925-596-8538 | hhong@berkeley.edu | [henryhong.github.io](https://github.com/henryhong) | [linkedin.com/in/henryhong](https://www.linkedin.com/in/henryhong) | github.com/henryhong

EDUCATION

University of California, Berkeley

Expected Graduation: May 2027

B.A. Computer Science | B.A. Cognitive Science | Data Science Minor

GPA: 3.957/4.0

Awards and Honors: 2023 UC Berkeley Datathon for Social Good (2nd Place, Team Lead), The Leadership Award (Cal Alumni Association Scholarship), UC Berkeley Dean's Honor List, National Merit Scholarship

Relevant Coursework: Data Science, Optimization, Linear Algebra, Machine Learning, Probability, Multivariable Calculus, Data Structures and Algorithms, Differential Equations, Artificial Intelligence, Discrete Mathematics

EXPERIENCE

Data 198 Course Director

Jan 2025 – Present

Data Science Society at Berkeley

Berkeley, CA

- Lead Data 198: Real World Data Science, instructing **80+** students on **statistics/data science principles**
- Mentor a team of **10** TAs and tutors, overseeing **12** advanced student-led data science projects
- Develop and manage the **course website** with dynamic HTML/JS/CSS to improve accessibility and engagement
- Streamline collaboration using tools like **Jupyter Notebooks, Git, and Tableau**, enhancing content delivery

Computational Neuroscience Researcher

Aug. 2024 – Present

Fan Lab, University of California, San Francisco

San Francisco, CA

- Applied data science techniques and optimized an **LSTM neural network** pipeline with **86.5%** accuracy to predict epileptic spikes across sleep-wake cycles
- Developed a line length transform to detect and tag seizure events, increasing spike detection accuracy by **23%**
- Calculated key biomarkers to identify patterns associated with epilepsy, supporting insights for early intervention

Data Science Consultant

June 2024 – Aug. 2024

Universal Health Services

King of Prussia, PA

- Identified dataset limitations and pivoted from ensemble models to time series forecasting, achieving **81.5% accuracy** with an **ARIMA** model for financial metrics
- Developed Random Forest, Gradient Boosting, & LSTM models, identifying **8** drivers of financial performance
- Presented insights to executives, driving decisions with a **17%** forecast accuracy improvement

Data Science Intern (UC Berkeley Discovery Research Extension)

Dec. 2023 – May 2024

UC Berkeley College of Letters and Science Deans' Office

Berkeley, CA

- Developed a logistic regression model achieving **94.4%** accuracy for predicting alumni donation likelihood
- Built and optimized an **LSTM** model with **86.4%** accuracy for donation amount forecasting
- Utilized neural networks to identify key features preventing minority alumni from donating, enabling **targeted outreach strategies** to improve inclusivity

PROJECTS

ASL Gesture Classifier | Random Forest, CNN, MediaPipe, Python

Oct. 2024 – Dec. 2024

- Achieved **97.2% accuracy** using **Random Forest** and **80.3% accuracy** with **CNN** for ASL recognition
- Generated custom training dataset by capturing real-life ASL gestures, improving model generalizability
- Utilized **MediaPipe** for hand landmark detection and advanced feature extraction to train models
- Demonstrated real-time gesture recognition capabilities applicable to live ASL translation systems

NodeLinker | Graph Neural Networks, React, Flask, JavaScript

Dec. 2023 – May 2024

- Built an AI-assisted member directory for **100+** students and alumni via **React** and **Flask**, deployed on **Heroku**
- Developed a personalized recommendation system by implementing a **Graph Convolutional Network (GCN)** with **PyTorch**, achieving an **ROC AUC score of 0.72** in link prediction accuracy between members
- Integrated Google OAuth 2.0 for secure login, retrieved data through **Airtable API**, and generated relevant responses using **OpenAI API**, enhancing user engagement and interaction

SKILLS

Skills: Data Visualization, Python, Data Analytics, Tableau, Looker, AB Testing, Linux, Data Modeling, Data Cleaning, Object Oriented Programming, Java, SQL, R, C++, Pandas, ML, Matplotlib, Seaborn, Scikit-learn, NLTK, Gensim, Keras, Tensorflow, Excel, Adobe Creative Cloud, Figma, React, Node.js, Git, Docker, Google Cloud Platform, AWS