Jay Yeung

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Education

University of California, Berkeley — Expected May 2027
Bachelor's Degree Data Science — *Berkeley, CA*

- **Relevant Coursework:** Structure and Interpretation of Computer Programs, Multivariable Calculus

Experience

GitHub, Inc. — Berkeley, CA
Software Developer (Contract) – SAAS @ berkeley — *Sep 2023 – Present*

- Responsible for automating the process of tagging repositories with relevant topics using NLP and LLMs

Artificial Intelligence for Community Health Workers — Berkeley, CA
Berkeley Undergraduate Research Apprentice Program (URAP) Programmer — *Aug 2023 – Present*

- Proposed and developed a chatbot proof of concept that was accepted by project team for further development
- Responsible for creating a searchable database of clinical guidelines

Center for Genetically Encoded Materials (C-GEM) — Berkeley, CA
Berkeley Data Science Discovery Researcher — *Aug 2023 – Present*

- Extracted citations from research papers automatically
- Responsible for scraping research paper for amino acid sequences and attributes using LLMs

Broker Brain, LLC — Park City, UT
Co-Founding AI Lead Developer — *March 2023 – Present*

- Enhanced house search experience through AI-powered algorithms on askmarcie.com
- Generated engaging blogs and property descriptions using ChatGPT 4
- Parsed and processed MLS (multiple listing service) data, optimizing storage and retrieval with MongoDB
- Automated processing of steel listings using OCR and GPT-based techniques

NXP Semiconductors N.V. — San Jose, CA
Summer Intern — *Summer of 2021 and 2022*

- Leveraged AI software algorithms to drastically reduce the ATE debug time required in creating test-patterns
- Created a Perl program to convert firmware code from binary to ATE (automatic test equipment) code format
- Developed a C++ based VLSI Place & Route tool by using the Kernighan-Lin algorithm to optimize the data structure and speed up the run time from 50 to 4500 gates in seven hours

University of Maryland MIND Lab — College Park, MD
Computer Science Research Intern — *June 2022 – November 2022*

- Analyzed respiration, movement and heart rate data collected from Spire tag, a wearable sensor which captures 25 samples per second
- Implemented a Python program to automatically clean up the dataset using quadratic regression

Projects

American Sign Language to Text

- Implemented pose estimation techniques and utilized TensorFlow to transcribe ASL hand symbols
- Managed and processed a large dataset of 15 GB consisting of hand gesture data
- Deployed the backend using Nginx on AWS and the frontend on Vercel, ensuring a seamless real-time user experience on the website

Snap Detection

- Built a neural network that detects finger snaps that can be used to activate household appliances
- Hosted the project on GitHub and created a YouTube demo

Technical Skills

Programming Languages: Python, JavaScript, HTML, CSS, Java, C++, Perl, TypeScript

Frameworks: TensorFlow, React, Next.js, OpenGL, Flask, Django, Bootstrap, Express.js

Libraries: Git, NumPy, Pandas, SciPy, Matplotlib, PyTorch, Sk-Learn, Scrapy, LangChain, OpenCV, BeautifulSoup, MediaPipe, PyAutoGUI, pickle, tabula, NLTK, RegEx, pyimgui, seaborn