

Aaron Hsieh

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Education

University of Pennsylvania, M.D.

Aug 2025 - June 2029

- **Activities:** VP of Curriculum @ PennHealthX, Admissions Interviewer

New York University, B.S. in Computer Science

Sep 2019 – May 2023

- **GPA:** 3.9/4.0
- **Minors:** Mathematics and Biomolecular Science
- **Activities:** NYU Engineering Honors Program (20 members each year), NCAA D3 Varsity Swimming, Grader for Discrete Mathematics and Linear Algebra & Differential Equations

Research

Medical Student Researcher, University of Pennsylvania – Philadelphia, PA

October 2025 - Present

Advisor: Cassandra Ligh, MD

- Developing iOS game for rehabilitation assistance for patients with facial paralysis

Advisor: Daniel Hashimoto, MD

- Assessing VLM alignment with expert reasoning for endoscopic surgeries
- Investigating representation-engineering for alignment and reasoning evaluation of surgical LLMs

Undergraduate Researcher, New York University – New York, NY

Mar 2020 - May 2023

Advisor: Zhe Sage Chen, PhD

- Trained a parametric convolutional neural net on raw EEG data for risk prediction of epilepsy condition
- Wrote feature engineering pipelines to preprocess noisy EEG data and extract biomarkers for ML models
- Achieved an AUC of 0.87 by adding signal complexity features, an improvement over a paper that we previously published (AUC=0.77)

Industry

Software Engineer, Bloomberg – New York, NY

Aug 2023 – Apr 2025

- Re-architected an internal classification pipeline from scratch, reducing code complexity from ~15000 to 2000 lines of code and runtime from 14 to 2 days
- Redesigned company-wide data management system to be more efficient and scalable with database and API design
- Used Airflow to orchestrate end-to-end classification of internal data with regex and machine learning
- Implemented a recurring Python task to identify unclassified internal data, revealing 50% of data assets were unclassified and improving regulatory compliance

Software Engineer Intern, Snap Inc. – New York, NY

May 2022 – Aug 2022

- Created command line interface tool for offline graph execution, reducing MLE testing time from weeks to minutes
- Added graph execution component for fetching and returning lens features from BigTable
- Built new retrieval source for contextual lens recommendation system based on visual embedding cosine similarity, increasing count of unique lenses (OKR) by over 300%

Software Engineer Intern, Facebook (now Meta Platforms, Inc.) – Menlo Park, CA

May 2021 – Aug 2021

- Authored data pipelines that processed 900+ billion rows and reduced compute usage by 50% with efficient SQL
- Implemented Python backend for including profile pictures in Instagram friend suggestion notifications, increasing click count by 3.8% and click rates by 1.8%
- Enhanced Python infrastructure to support sparse features and deployed ranking models, increasing follows by 1.8%

Publications

Zhe S. Chen, **Aaron Hsieh**, Guanghao Sun et al. (2022) Interictal EEG and ECG for SUDEP Risk Assessment: A Retrospective Multicenter Cohort Study. *Frontiers in Neurology*.