Jeremy Li

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Education

Carnegie Mellon University Aug 2021 – May 2025

Bachelor of Science in Machine Learning, Minors in Artificial Intelligence and Business Analytics *Pittsburgh, PA*

- Relevant Coursework: Computer Vision, Data Engineering, Data Structures & Algorithms, Deep Learning, Natural Language Processing, Optimization, Probability, Statistical Inference & Regression, Time Series Analysis
- Leaderships/Awards: Data Science Club Vice President, LFE Chair, Quantitative Social Science Scholar, Google Developer Student Club Core, High Honors Dean's List, JPMorgan Chase Data For Good Runner-Up

Experience

LivaNova May 2024 – Aug 2024

Data Science Intern *Pittsburgh, PA*

- Designed a web scraping algorithm, automating weekly email summaries for stakeholders on competitor markets
- Analyzed adoption factors for LivaNova epilepsy devices, optimizing patient targeting and boosting Q4 2024 sales
- Developed machine learning models pinpointing 150,000+ at-risk epilepsy patients, facilitating timely physician outreach and significantly improving patient care outcomes
- Migrated medical claims data to Microsoft Azure, streamlining data pulling, analysis, and deployment in the cloud

Moderna Therapeutics May 2023 – Aug 2023

People Analytics Intern *Cambridge, MA*

- Developed software to pretrain, train, and fine-tune large models with PyTorch on 1M+ employee survey data
- Implemented an NLP pipeline with cloud integration, enhancing analysis accuracy and increasing efficiency by 40%
- Engineered models to transform datasets into actionable dashboards, driving strategic decisions for the HR team

CMU Machine Learning Department Jun 2022 – Present

Teaching Assistant *Pittsburgh, PA*

- Lead weekly labs and office hours, teaching data science and machine learning concepts to over 100 students
- Mentor 12 groups through their machine learning research projects, from proposal to implementation and analysis

CMU Neuroscience Institute Jan 2022 – Dec 2022

Data Analyst Research Assistant *Pittsburgh, PA*

- Contributed to childhood behavioral and neuroimaging research, supporting 3 publications with data analysis
- Developed interactive dashboards and optimized data processes, improving accessibility by 30% across 15 datasets

Projects

Poker Card Detection | *Computer Vision, YOLO, OpenCV* Aug 2024

- Developed a poker card detection model using YOLO, achieving high accuracy in identifying cards
- Utilized Python and OpenCV for seamless integration of video capture, card detection, and real-time analysis

Texas Hold'em Poker Odds Calculator | *Python, Probability, Optimization* May 2024

- Built a poker odds calculator with Monte Carlo simulations to compute winning probabilities from pre-flop to river for up to 9-player tables in Texas Hold'em, supporting strategic decision-making
- Optimized simulation algorithms to run millions of iterations per hand, providing real-time insights
- Designed a user-friendly interface for smooth display of calculated probabilities/odds on given betting stages

Clickbait Detection System | *NLP, BERT Model, Text Classification, Hugging Face* Jan 2024

- Developed a machine learning model to detect clickbait headlines, achieving over 85% accuracy
- Fine-tuned a BERT model and optimized performance by configuring hidden layers, batch sizes, and epochs

Airbnb Tourist Guide for New York City | *Data Visualization, SQL, Market Analysis* Mar 2023

- Analyzed over 50,000 Airbnb listings using Python to uncover market trends and optimize data-driven strategies
- Developed interactive visualizations to provide users with clear insights into NYC's Airbnb market dynamics

Technical Skills

Languages: Python, SQL, R, Java, C
Developer Tools: Amazon Web Services, Git, Docker, Google Cloud Platform, Microsoft Azure, MongoDB
Data Science: A/B Testing, Big Data Technologies, Data Visualization, Data Wrangling, Database Management, Distributed Computing, Feature Engineering, Machine Learning, Model Evaluation & Validation, Statistical Analysis