

JUSTINA LAM

(856) 535-0233 | jklam@seas.upenn.edu | [LinkedIn.com/in/justina-lam-cs](https://www.linkedin.com/in/justina-lam-cs) | [Github.com/JustinaLam](https://github.com/JustinaLam)
portfolio-justinalam.vercel.app/

EDUCATION

University of Pennsylvania

Philadelphia, PA

Dean's List; Bachelor of Science and Engineering (BSE) in Computer Science

Sept. 2021 – May 2025, GPA: 3.68

Cherry Hill High School East

Cherry Hill, NJ

Valedictorian, AP Scholar with Distinction

Sept. 2017 – May 2021, GPA: 4.00

TECHNICAL TOOLS

Languages: Python, Java, JavaScript, Go, C/C++, R, Linux shell scripting, XML, HTML/CSS, OCaml

Data & Machine Learning: PyTorch, TensorFlow, Keras, Hugging Face, Scikit-Learn, Hail, NumPy, Pandas

Cloud & DevOps: AWS, MongoDB, SQL, Docker, Kubernetes, Istio, Envoy, Azure APIM, Minikube, Ubuntu, Git

Web: ReactJS, NodeJS, Express, Flask, Django

EXPERIENCE

Software Engineer Intern

May 2023 – Aug. 2023

UiPath, Inc.

Bellevue, WA

- Developed and deployed a reverse proxy API request routing pipeline, using an Istio service mesh on Kubernetes clusters
- Achieved substantial reductions in latency, network hops, and resource costs, to optimize system performance
- Fine-tuned a large language model (LLM) to resolve customer bug tickets, along with a full-stack UI

Machine Learning Undergraduate Researcher

May 2022 – Aug. 2022

Penn Center for Neuroengineering and Therapeutics

Philadelphia, PA

- Trained an NLP model for question-answering and text classification, to predict epilepsy patient diagnoses from discharge summaries with up to 87.06% accuracy, exploring strategies for data augmentation and hyperparameter tuning
- Analyzed correlation of medication dosage and other variables with successful seizure induction in epilepsy patients, offering insightful data visualization, using a pharmacokinetic absorption model

Genomic Data Analytics Undergraduate Researcher

Jan. 2022 – Present

Penn Neurodegeneration Genomics Center

Philadelphia, PA

- Identified genotype features characteristic of Alzheimer's disease, using open-source computational and bioinformatics tools
- Performed colocalization studies to evaluate expression levels of genes linked to Alzheimer's disease

PROJECTS

Recurrent Neural Network for Flooding Prediction | *Python, TensorFlow, Flask*

- Built an RNN model to predict urban flooding, trained on pre-processed time series data from a federal database
- Developed a full-stack interactive web application for dynamic visualization of data and predictions, using Flask

Cloud-Based Social Networking Platform | *AWS DynamoDB, JavaScript, ReactJS, NodeJS, Git*

- Designed a social media platform as a cloud-based web application modeled after FaceBook
- Enabled users to send messages with dynamic updates, add friends, create posts, and view suggested news articles

Spotify API Song Recommender | *Python, Scikit-Learn, Django, ReactJS*

- Designed a full-stack web application accessing the Spotify API to display a list of recommended tracks, generated based on cosine similarity to a feature vector constructed from the user-inputted Spotify playlist

Brain MRI Image Classification via Convolutional Neural Network | *Python, Keras*

- Trained and evaluated a CNN model for image classification of brain MRI scans to detect and identify brain tumors

Machine Learning for Heart Failure Prediction | *Python, Scikit-Learn*

- Implemented and evaluated several ML algorithms to determine the likelihood of heart failure with 87% accuracy

RELEVANT COURSEWORK

Algorithms: Machine Learning · Machine Perception · Deep Learning · Algorithms · Data Structures and Algorithms

Systems: Operating Systems Design and Implementation · Computer Systems · Automata, Computability, Complexity

Networks: Networks and Security · Scalable and Cloud Computing · Internet and Web Systems · Databases

Math: Probability · Mathematical Foundations of Computer Science · Multivariable Calculus and Linear Algebra

Specialized Interests: Molecular Biology and Genetics · Molecular Biology · Macroeconomics · Corporate Finance