

Eric S. Lee

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EDUCATION

University of Pennsylvania School of Engineering and Applied Science (Clark Scholar)

May 2026

- Bachelor of Science in Engineering, Computer Science
- Accelerated Master of Engineering, Computer Science

GPA: 3.96/4.00

Relevant Coursework: Operating Systems; Advanced Algorithms; Data Structures and Algorithms; Big Data Analytics

Honors & Awards: Employee of the Month at Southern California Edison, 1st Place Congressional App Challenge 45th District

WORK EXPERIENCE

Software Engineering Intern

May 2024 - August 2024

Southern California Edison | *Pomona, California*

- Saved 100 hours per month by developing a 98% accuracy Large Language Model that extracted answers to questions from email bodies. Leveraged Google Cloud Platform, Power Apps, and Python to create an automated data pipeline script
- Improved the performance of existing machine learning models for predicting underground equipment failure to 88% by addressing imbalanced data issues. Implemented ensemble techniques like XGBoost and Random Forest

Computer Systems Teaching Assistant

April 2024– Present

University of Pennsylvania | *Philadelphia, Pennsylvania*

- Conducting weekly office hours for over 50 undergraduate UPenn students for debugging issues in C and understanding memory management, CPU architecture, firmware design, and concurrency
- Leading bi-weekly teaching sessions for 30+ students to answer conceptual questions and review low-level system design

Data Engineering Intern

May 2023 - August 2023

Southern California Edison | *Pomona, California*

- Automated 45-minute monthly task to 20 seconds. Optimized daily data refreshes from 1 hour to 10 seconds using Python and Power Automate. Constructed data ETL pipeline to transition 500 gigabytes of data from MS Access to SAP HANA
- Produced historical data marts with 300 relational tables by data mining to build 3 data visualization dashboards with Power BI and SAS that are used by 10,000+ corporate stakeholders

EXTRACURRICULAR ACTIVITIES

Product Manager and Software Engineer

January 2024– Present

Penn Spark | *Philadelphia, Pennsylvania*

- Leading a team of 8 designers and developers to build a Django-React Native mobile app for UPenn students to post and vote on polls. Used by 100+ users with 200+ API calls daily. Increased speed of database API calls by 70% using lazy updates
- Holding 1-on-1 meetings every week and executing team-building exercises to improve team collaboration

Co-Founder / Full Stack

May 2020 – July 2023

Fundsy LLC | *Irvine, California*

- Engineered a platform for nonprofits offering features like direct debit, wire transfers, and fiscal sponsorship using Firebase and React Native; enhanced user engagement resulting in 300 new sign-ups within the first quarter post-launch.
- Processed over \$110,000 of transactions for over 100 domestic and international registered nonprofits

PROJECTS

PennOS

Jan 2024 - August 2024

- Programmed a user-level UNIX-like operating system from scratch in C. Handles round-robin scheduling of threads, multithreading, thread safety, shell operations, and its own file system using File Allocation Table

Fraudulent Credit Card Transaction Detector

September 2023 - December 2023

- Created a predictive model in PyTorch with 96% accuracy to detect fraudulent card transactions to reduce monetary losses for banks. Preprocessed over 6,000,000+ financial transactions using PandaSQL. Utilized Random Forest, XGBoost, logistic regression, hyperparameter tuning for training.

Edufy

August 2023 - September 2023

- Spearheaded an AI application utilizing GPT 3.5 Turbo to auto-generate study materials from lectures; reduced manual content creation time by 75%, allowing instructors to focus on curriculum development.
- Incorporated a speech-to-text transcription feature that improved accuracy of lecture content conversion by 90%

TECHNICAL SKILLS

Programming Languages: Java, Linux, SQL, Python, C++, C, C#, Ruby, React, JavaScript, TypeScript, OCaml, HTML/CSS

Platforms/Tools: GCP, PyTorch, Node.js, MongoDB, AWS, Docker, Django, SAS, MySQL, NextJS, Postgres, Firebase, Power BI, Microsoft Azure, Git, Snowflake, Power Automate