

Leo Yang

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EDUCATION

Johns Hopkins University

Master of Science in Computer Science

Baltimore, MD

Aug. 2024 – Present

California Institute of Technology

Bachelor of Science in Computer Science, Minor in Data Science

Pasadena, CA

Sep. 2020 – June 2024

EXPERIENCE

Software Engineer

Johns Hopkins University Applied Physics Laboratory

July 2024 – Present

Laurel, MD

- Member of the Discovery Program, a rotational program designed for participants to gain a wide set of skills and experiences across multiple departments of the lab.
- Ground software engineer contributing to projects including Parker Solar Probe. Developed dependency analyzer to parse and traverse POM files.

Software Engineer Intern

Space Dynamics Laboratory

June 2023 – Sep. 2023

North Logan, UT

- Developed Python containers using Docker and deployed it with Kubernetes to integrate Python functionality into a C# project, thereby enhancing portability and scalability.
- Implemented HTTP-based communication between microservices using Apache ActiveMQ, enabling smooth integration and exchange of data in a distributed architecture.

Summer Undergraduate Research Fellow

California Institute of Technology

June 2022 – Aug. 2022

Pasadena, CA

- Developed code for SkyPortal, an open-source data platform for astrophysicists maintained by the Kasliwal Research Group and the Fritz Marshal dev team.
- Used ReactJS and Python to implement new frontend components and new backend API endpoints to help streamline the analysis of over 2500 GCN Events saved in the database. These additions will aid in the research of kilonovae during LIGO/Virgo/KAGRA's O4 observing run.

PROJECTS

Interactive News Website | *GPT-4, MongoDB, Flask, React, Docker*

- Utilized GPT-4, MongoDB, Flask, and React to create a website to promote news literacy by presenting it as interactive short-form media.
- Used prompt engineering to create dynamic news summarizer and interactive chatbot.

Platformer Game | *C, Git*

- Created a physics engine in C that simulated forces and collisions. This engine was then utilized to create a multiplayer game that involved creating multiple levels, obstacles, and platforms for the players to traverse.

Ecommerce Website | *HTML, CSS, JavaScript, Node.js*

- Implemented REST API functionality to implement features such as real-time inventory updates, sales promotions, and product categorization.

Esports Winner Predictor | *Python, TensorFlow, pandas, NumPy, SciPy*

- Scraped box score data and built random forest, dense neural network, and logistic regression models for predicting winners in *League of Legends* esports using TensorFlow. Final results yielded over 80% test set accuracy.

TECHNICAL SKILLS

Languages: Java, Python, C, SQL, JavaScript, HTML/CSS, OCaml, Haskell

Technologies: Docker, Kubernetes, React, Angular, Node.js, Maven, Git, VS Code, MS Office, Matlab

Libraries: NumPy, pandas, Matplotlib, PyTorch, TensorFlow, SciPy, PIL