

Ju Young (Justin) Yang

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Aspiring Software Engineer driven by a passion for building innovative products and solutions.

Experienced in the complete software development life cycle with a demonstrated ability in full-stack development, cross-functional collaboration and communication, and adaptability in picking up new frameworks and technologies.

Duke University — B.S Computer Science

graduated December 2023

Relevant Coursework: Web Application Development, Database Systems, Design/Analysis of Algorithms, Data Structures and Algorithms, Computer Systems, Mobile App Development, Intro to AI

Skills:

Frameworks & Libraries	React, Next.js, Flask, FastAPI, Node.js, Express, Pytorch, Tensorflow, Pandas, scikit-learn
ML & AI	Regression, Clustering, Classification, Markov Models, Reinforcement Learning
Database	MongoDB, PostgreSQL, XML, SQLAlchemy
Tools & Platforms	Git, AWS(S3, EC2), Docker, Shell (Bash/Unix)

EXPERIENCE

Software Engineer, Very Sweet Inc.

May 2024 - Current

- ▶ Building productivity and finance management features in an all-in-one platform that help solo entrepreneurs manage their business; currently developing automated business budgeting feature with tRPC API for scalability.

Research Assistant, ColAI

Jan 2024 - Current

- ▶ Implementing advanced methodologies to enhance the efficiency and extend the context length of Transformer models.
- ▶ Organizing internal meetings to devise and integrate diverse architectural frameworks, including RetNet, VQ-VAE, and RoPE.

ML Researcher Intern, POZAlabs

May 2023 - August 2023

- ▶ Performed invitational research on music generation task implementing fine-level dynamics.
- ▶ Conducted exploratory data analysis and observed success rate of 80% on valence mood classification task using Support Vector Machine. Accepted to AAAI 2023.

ML Engineering Intern, POZAlabs

May 2022 - August 2022
Seoul, Republic of Korea

- ▶ Spearheaded ablation study for paper published in NeurIPS 2022 (ComMU) to investigate the effect of metadata in combinatorial music generation; evaluated its distinctiveness to human composed samples through Amazon Mturk involving 100+ composers.
- ▶ Led company-wide meetings with cross-functional agenda and developed internal commodity templates for a streamlined knowledge sharing across the organization.

PROJECTS

Eventify Inbox

April 2024

Langchain, OpenAI, Flask, React, AWS

- ▶ Created application to provide automatic schedule management service through email and calendar applications.
- ▶ Utilized LLM agent to create meetings and agendas in the users' calendar based on new emails received through webhooks.

Earth Street Journal

November 2023

Flask, React, MongoDB, Fine-tuning, Beautiful Soup

- ▶ Developed web-application to enhance accessibility of environmental news through web scraping and structured summarization.
- ▶ Fine-tuned GPT model with tailored training and validation dataset to enhance data consistency and summarization quality.

Bulk Buy Buddies

November 2023

Next.js, Flask, MongoDB, Google Maps API

- ▶ Crafted web-application to simplify bulk purchase decisions by matching Costco customers who wish to split purchased items.
- ▶ Incorporated custom REST API with Next.js frontend and implemented location-specific services using Google Maps API.

Not Uber

October 2023

Python, Graph Theory, Search Algorithms

- ▶ Simulated ride-sharing service modeling Manhattan with a graph-based model (50,000 nodes, 2,000 passengers, and 200 drivers) and conducted desire-data assessment; achieved linear-time matching strategy using A*, Dijkstra's, Floyd-Warshall.

PUBLICATION & CERTIFICATION

- ▶ **MID-FiLD: MIDI Dataset for Fine-Level Dynamics (AAAI 2023)**

August 2023

- ▶ **AI Engineering Professional Certificate (IBM)**

March 2024