Abhinav Uppala

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EDUCATION

University of California, Irvine

Irvine, CA

 $Bachelor\ of\ Science\ -\ Computer\ Science$

2023 - 2027

• GPA: 3.7/4.0, Dean's Honor List, Undergraduate Research

Professional Experience

Full Stack Engineer Intern

Jul. 2025 - Present

N2N Services Inc.

Duluth, GA (Remote)

• Supporting N2N's flagship product Illuminate using Java, Spring, Vue.js, providing end-to-end REST API integrations for higher institutions.

Applied ML Researcher

Aug. 2024 - Present

UC Irvine Health SciTech Group

Irvine, CA

- Developed a modular data pipeline for preprocessing, analyzing, and visualizing various types of data, enhancing data accessibility and insights for research projects.
- Improved research efficiency by integrating an LLM-based healthcare agent to automate data handling workflows via natural language prompts, simplifying data engineering for researchers.

Coding Instructor

Jan. 2023 - Aug. 2023

Code Ninjas

Folsom, CA

- Mentored over 200 students in game development curriculum using Python, JavaScript, Unity/C#, Lua.
- Facilitated Python Club, which taught 10+ students competitive programming concepts in Python.

Software Engineering Intern

June 2022 - Aug. 2022

Intel Corporation

Folsom, CA

- Developed a system management portal using Python, consolidating diagnostics for over 100 test benches running benchmarking software in more than 5 Intel offices across the U.S., leading to a 75% reduction in downtime.
- Built a command-line version allowing for future automation, such as auto-rebooting systems upon crashing.

Projects

TelescopeML □ | Tensorflow, Scikit-learn, Streamlit, Pandas, Numpy

- Implemented unsupervised learning techniques with PyTorch to cluster & analyze brown dwarf spectra.
- Developed Streamlit web demo showcasing models, allowing users to train, visualize, upload & save each model.
- Contributed to open-source project TelescopeML \(\mathbb{Z}\) as an alternative to existing CNN model, in a 1 week deadline.

Crop Guard ☐ | React.js, FastAPI, PostqreSQL, TypeScript, Next.js, PyTorch, Tailwind

- Collaborated on fullstack web app that classifies plant diseases given an image using a fine-tuned ResNet, and provide users with descriptions & treatments for these diseases with Google's Gemini-1.5 LLM.
- Implemented user login and data visualization from prior prompts, revealing long-term plant disease trends.

Diffusion Emoji Generator □ | React.js, FastAPI, TypeScript, Next.js, PyTorch, Tailwind

- Developed a full-stack web app with a team of 4 to generate custom emoticons from a written prompt.
- Tuned diffusion model on 3k+ emojis, iteratively removing noise from an image until it resembles the prompt.

Song Hangman □ | Flask, JavaScript, Bootstrap, HTML/CSS

- Deployed fullstack web app where users can play hangman with songs from chosen artists using Spotify's web API.
- Implemented responsive UI and utilized cookies to cache API results for over 80% faster load times.

SKILLS

Programming Languages: Python, JavaScript, C++, TypeScript, Java, SQL, HTML/CSS

Frameworks & Tools: React.js, FastAPI, Amazon Web Services (AWS), Docker, PostgreSQL, Spring, AWS

DynamoDB, AWS EC2, Next.js, Vue.js, Git, Tailwind, PyTorch, TensorFlow, pandas, numpy, Flask, REST APIs, LLMs

ABOUT ME

Interests: Video Games, Cooking, Music, Weightlifting, Traveling

U.S. Citizen