

Justin Nguyen

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Portfolio

Education

University of Maryland, College Park, MD

B.S. in Computer Science — Specialization: Data Science

Expected: Dec 2025

University Honors — GPA: 3.76 — Dean's List

Relevant Coursework: Computer Systems, Programming Languages, Algorithms, Data Science, Machine Learning, Artificial Intelligence, Human-Computer Interaction

Technical Skills

Languages: Python, Java, C, C++, Rust, OCaml, MATLAB, SQL, JavaScript, TypeScript, HTML, CSS

Frameworks/Libraries: React, Flask, Pandas, NumPy, Scikit-learn, Scikit-Surprise, BeautifulSoup, LangChain

Tools: Git, Docker, Bitbucket, Jira, Figma

Professional Experience

Precise Software Solutions, Rockville, MD

May 2022 – Aug 2022

Development Intern

- Built internal website using **HTML**, **CSS**, and **JavaScript** as part of the Sapfonte initiative.
- Contributed code through **Jira**-tracked tasks and collaborated on feature implementation with the development team.
- Participated in company-wide demo, presenting the final product to 100+ employees.

Projects

UMD Professor Summarizer

June 2025

Full-Stack Data + LLM Application — GitHub

- Built a full-stack **Flask** web application leveraging the **Planet Terp API** to analyze 24k+ courses and 13k+ professors at UMD.
- Created a clean, responsive front-end using **Tailwind CSS**, enabling users to generate professor summaries and insights.
- Engineered a modular LLM pipeline using **Pydantic**, **PromptTemplate**, and **OutputParsers** to deliver structured outputs from **LangChain** and **Groq**.
- Dockerized the entire application for streamlined deployment and environment consistency.

Spotify Activity Tracker

June 2025

Full-Stack OAuth + Web App Project — GitHub

- Developed a Flask-based web app that authenticates users with **Spotify OAuth 2.0** and displays real-time playback activity.
- Built backend logic in **Python** for handling access tokens and API communication.
- Designed a minimal, responsive UI with **HTML/CSS** focused on usability.

MangaUpdates Scraper

Jan 2025

Data Science / Recommender System — GitHub

- Designed an end-to-end pipeline using **BeautifulSoup**, **Requests**, and **Pandas** to scrape and clean metadata from 500+ manga.
- Built a personalized recommender system with **Scikit-Surprise** and **K-Nearest Neighbors**.
- Implemented category scoring and filtering logic for customized user recommendations.

Obesity Rate Prediction

May 2025

Collaborative Data Science Project — GitHub

- Analyzed obesity rate trends across U.S. populations using CDC data and several regression models, including **Random Forest**, **Linear Regression**, and **KNN**.
- Conducted **hypothesis testing** to assess feature significance; found income and education level most impactful.
- Sanitized and preprocessed the dataset via feature reduction and **KNN imputation**.