

# Justin Nguyen

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(301) 820-8347

US Citizen

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## Education

**The University of Maryland**, College Park, MD

B.S. in Computer Science — Data Science — University Honors — Dean's List

**Expected Graduation: Dec 2025**

Relevant Courses: Computer Systems, Organization of Programming Languages, Algorithms, Data Science, Human-Computer Interaction, Machine-Learning, Artificial Intelligence, Programming Language Technologies and Paradigms

## Technical Skills

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

**Tech/Tools:** Linux/UNIX, Git, Bitbucket, Jira, Figma

## Professional Experience

**Precise Software Solutions**, Rockville, MD

**May 2022 – Aug 2022**

*Software Engineering Intern*

- Conducted QA testing for PillSafe, a cloud-based pill recognition app utilizing machine learning and big data, identifying and reporting 15+ critical bugs that improved system reliability and user trust.
- Engineered and deployed the Sapfote internal website using HTML, CSS, and JavaScript; presented at a company-wide Brown Bag session to 100+ employees, leading to increased internal engagement.
- Acted as Scrum Master for an Agile team, facilitating sprint planning, retrospectives, and daily stand-ups with Jira, improving velocity and cross-team communication by 20

**Disabled Student Services Tutor**, Montgomery College, Germantown, MD

**Sept 2022 – May 2023**

*Academic Tutor*

- Delivered over 100 hours of individualized tutoring for students with disabilities, focusing on Calculus and Python programming (file I/O, cryptography), resulting in GPA improvements and increased engagement.
- Fostered academic accessibility by providing note-taking support and ensuring alignment with ADA compliance standards in technical coursework.
- Utilized empathetic communication and adaptive strategies to support students in STEM fields, enhancing retention and confidence.

## Projects

**MangaUpdates Scraper**

**June 2025**

*Data Science / NLP Project*

<https://github.com/justinn123/manga-rec>

- Engineered a full pipeline in Python to scrape, clean, and analyze metadata for 500+ manga titles from MangaUpdates using **BeautifulSoup**, **Requests**, and **Pandas**.
- Applied robust data cleaning with JSON parsing and error handling to improve dataset quality, enabling better genre and category-based filtering.
- Built a personalized recommendation system using **Scikit-Surprise** and **K-Nearest Neighbors (KNN)**, achieving strong predictive performance in user testing scenarios.

**UMD Planet Terp Scraper**

**January 2025**

*Full-Stack Data Pipeline + NLP Project*

<https://github.com/justinn123/UMD-Prof-Ranker>

- Developed an automated pipeline to extract and analyze over 24,000 UMD courses and 13,000 professors using the **Planet Terp API** and **Pandas**, enabling data-driven decisions on course selection.
- Integrated a real-time **Discord bot** using **discord.py**, allowing 5+ users to interactively query professor and course data for planning semesters.
- Applied **SentenceTransformers** and ensemble modeling with **VotingRegressor** to build a sentiment analysis model for predicting professor ratings from textual reviews, improving insight accuracy.