

ARJUN VAIDYA

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EDUCATION

University of Maryland, College Park

August 2021 – May 2025

Bachelor of Science in Computer Science | GPA: 4.0

Relevant Coursework: Data Structures, Algorithms, OOP, Machine Learning, Data Science, Database Design, Computer Systems, Discrete Math, Statistics, Linear Algebra, Number Theory, Complex Variables

Certifications: Meta Back-End Developer Specialization (Django Web Framework, Web Development, APIs)

EXPERIENCE

Software Engineer Intern

June 2024 – August 2024

Dow Jones, OPIS

Gaithersburg, MD

- Created a process to share client data directly through Snowflake, resulting in 10% reduction in costs.
- Automated data share creation process using Python, Azure, and SQL with an MVC pattern.
- Developed SQL scripts for annual data partitioning, saving ~2 hours of manual work per execution.
- Deployed a data share for a live customer and authored documentation in Confluence.

Teaching Assistant

August 2022 – Present

Department of Computer Science, UMD

College Park, MD

- Led discussions for 30+ students in Object Oriented Programming using Java (CMSC131, CMSC132), and Discrete Structures (CMSC250).
- Responsible for assisting students with course material, hosting office hours (~600 students), supplementing instructional content, and grading assignments over the course of five semesters.

Software Engineer Intern

June 2023 – August 2023

Dow Jones, OPIS

Rockville, MD

- Enhanced user communication by developing a web page for release notes using React, Redux, TypeScript.
- Improved data presentation and user experience with intuitive grid views and themes.
- Increased test coverage by 50% using Jest and SonarQube.

Research Intern

June 2022 – August 2022

Institute for Systems Research, UMD

College Park, MD

- Analyzed and simulated 500k instances of intruder-defender interactions using Python, Pandas, Scikit-learn, and Numpy for the Perimeter Defense Problem.
- Classified and selected optimal algorithms with 80% accuracy through Exploratory Data Analysis techniques.
- Co-authored a paper published in the 2023 IEEE/RSJ International Conference.

PROJECTS

Speechify | *Python, Flutter, Flask, OpenCV, PyTesseract*

- Collaborated with three teammates to develop an app for dyslexic users using Flutter Text-to-Speech and Optical Character Recognition to read text from photos.
- Awarded People's Choice Hack (out of 125 projects) at Bitcamp Hackathon.

Bloom | *React, Next.js, MongoDB, Axios, Cheerio, Puppeteer, Nodemailer, Tailwind*

- Created a full-stack application to notify users about seat availability from UMD course web page.
- Implemented web scraping to extract course data and stored it in MongoDB Atlas.
- Scheduled hourly updates using Cron Job and automated email notifications using Nodemailer.

FIRE Research Program | *Python, OpenCV, NumPy, DJITelloPy*

- Collaborated with team members and Dr. Nitin Sanket to develop motion planning algorithms using drones.
- Applied computer vision techniques on video and image data for object detection using template matching.
- Presented research findings at the UMD FIRE Symposium in November 2022.

TECHNICAL SKILLS

Languages: Python, Java, JavaScript, TypeScript, SQL, C, HTML, CSS

Frameworks & Technologies: React, Next.js, Redux, Snowflake, MongoDB, Pandas, NumPy, Jest, JUnit

Tools: Git, Azure DevOps, SonarQube, Vercel, Linux