

# SHASHANK PRATAP SINGH

Rockville, MD | 240-927-9195 | [ShashankPSingh2112@gmail](mailto:ShashankPSingh2112@gmail.com) | [linkedin.com/shashank-p-singh](https://www.linkedin.com/shashank-p-singh) | [github.com/shashanksp04](https://github.com/shashanksp04)

## EDUCATION

---

**University of Maryland, College Park** College Park, MD  
Bachelor of Science in Computer Science Aug. 2022 – May 2025  
Minor in Technology Entrepreneurship and Corporate Innovation Cumulative GPA: 3.881  
**Relevant Courses:** Programming Languages & Paradigms, Algorithms & Data Structures  
Discrete Structures, Object Oriented Programming in Java

## LEADERSHIP AND WORK EXPERIENCE

---

**Board-Member, VPSA Student Advisory Council** Aug. 2024 – Present  
*University of Maryland* College Park, MD

- Meet with the Vice-President of Student Affairs' (VPSA) Student Advisory Council to discuss campus life issues, student concerns, and ways to enhance the university experience
- Contribute to meaningful conversations about campus matters, and the overall well-being of our diverse community

**Global Fellows in Washington, D.C. Program** Aug. 2024 – Present  
*Strategic Thinking, AI & Innovation Power concentration* College Park, MD

- Learn to develop strategic plans using "Ways, Means and Ends" and "Prometheus" methodologies for real-world scenarios.
- Crafted a strategy for UMD, for rising higher in university ranking and another one for an organic food product company, suggesting various means of AI integration in current business practices

**Co-President, International Student Advisory Board** Aug. 2023 – Present  
*University of Maryland* College Park, MD

- Build strong bonds with international student organizations and international students, actively addressing their concerns, and collaborating to enhance the board's accessibility and presence within the community

**Undergraduate Teaching Assistant** Aug. 2023 – Present  
*Department of Computer Science at the University of Maryland* College Park, MD

- Lead a 32-student discussion session. Assisting students on conceptual understanding of programming languages and revising important fundamentals of data structures, algorithms and OOPS concepts

**Community Assistant** Aug. 2023 – Present  
*Department of Resident Life at the University of Maryland* College Park, MD

- Contribute as an integral part of a dynamic community management team, fostering a collaborative environment to achieve common goals, enhancing resident experiences by addressing concerns, and promoting a positive community atmosphere.

**Android 101 Scholar** Sept. 2023 – Nov. 2023  
*Introduction to Android App Development at CodePath* College Park, MD

- Acquired hands-on knowledge in Android Development using Kotlin in Android Studio IDE.
- Worked on nine mini-projects, mastering the creation of interactive user interfaces, developing proficiency in managing the app lifecycle, testing and deploying applications, and handling Rest APIs.

## RESEARCH EXPERIENCE

---

**Dafny-Hoare Triple Research** | *Haskell, Dafny, Z3, Hoare Logic* Aug. 2024 - Present

- Conduct research under Professor Leonidas Lampropoulos, building upon the Mini-Dafny Project to explore the implementation of code verification for arrays using Hoare Triples.
- Develop a new Syntax, Parser and Hoare-Triple rule for the arrays to perform and test code-verification on complex codes

**To Heed Or Not To Heed** | *Python, HTML/CSS, Google Colab, MS Power Point* Jan 2024 - May 2024

- Conducted a mini-research project to identify how information on Reddit influences students' decisions on important aspects of student life, focusing primarily on academics and housing.
- Developed an application on Google Colab which uses the Python Reddit API Wrapper (PRAW) to extract reddit posts from r/UMD related to academics and housing
- Generated a semi-HTML file through the application, comprising multiple posts from r/UMD and including relevant details like Title, Main Text, Most Popular and Unpopular Comments.

## PROJECTS

---

- Blogify** | *React.js, Node.js, Express, MongoDB* **June 2024**
- Learnt to create a full-stack blogging website, integrating front-end and backend using the MERN stack framework
- Mini-Dafny** | *Haskell, Dafny, Z3, Hoare Logic* **Jan 2024 – May 2024**
- Developed a mini-version of Dafny, code verification language, by creating a new Syntax, Parser, and Code verifier
  - Enhanced knowledge about Hoare Logic, and in related topics like pretty printing, parsing, weakest preconditions
- Rating Fusion** | *pandas, NumPy, Matplotlib, SQL* **Feb 2024 – May 2024**
- Led a data-science group project that predicts the overall rating of a soccer player by leveraging player attributes in the dataset, shedding light on the intricate dynamics of player roles in soccer.
  - Spearheaded the initial brainstorming of the project idea, working in the initial phases of the project with data curation, preprocessing and EDA analysis, helping with thought process and code for the various hypotheses tests in the EDA section
  - Contributed to writing the code for the ML algorithm design/development and worked on the overall structuring of the published html document
- UniConnect, ranked in TOP 8 General Hacks of PennApps 2023** | *HTML/CSS, JavaScript* **Sept. 2023**
- Identified the problem of lack of affordable space storage lockers for international students. Created a website solution to connect interested students helping the community save time and resources.
  - DevPost: <https://devpost.com/software/uniconnect-7bjc1v>, created using HTML, CSS and JavaScript

## CERTIFICATIONS

---

- AWS Cloud Practitioner : Foundational** | *Cloud Computing, Cloud Applications, Cloud Services* **Aug. 2024**
- Postman API Fundamentals Student Expert** | *Postman, API Testing, Scripting* **July 2024**
- Wells Fargo Software Engineering Job Simulation** | *Java, Spring Boot, Rest API* **July 2024**
- Implemented and drafted an entity relationship diagram (ERD). Using ERD figured out what data the system needed to keep track of
  - Utilized Spring boot and Java JPA to build the proposed system to manage financial portfolios of clients
- Lyft Backend Software Engineering Simulation** | *Python* **July 2024**
- Completed a project for the Lyft Rentals team, creating UML diagram representing the new organized structure, refactored the messy codebase, and added a new functionality using Test-Driven-Development strategy
- Hewlett Packard Enterprise Software Engineering Job Simulation** | *Java, Spring Boot, Rest API* **June 2024**
- Implemented a Restful web server application in Java Spring Boot supporting GET, POST, DELETE.
  - Developed and ran a set of unit tests to assess my Java Spring Boot application's performance

## AWARDS & HONORS

---

- Honoree** **Oct. 2024**  
*Omicron Delta Kappa, the National Leadership Honor Society* **College Park, MD**
- Dean's List of Outstanding Students** **July 2024**  
*Awarded by the College of Computer, Mathematical and Natural Sciences* **College Park, MD**
- Community Assistant Of the Year** **April 2024**  
*Bestowed by the Division of Student Affairs & the Department of Resident Life* **College Park, MD**
- Certificate of Achievement** **April 2024**  
*Conferred by the International Students & Scholar Services (ISSS)* **College Park, MD**

## TECHNICAL SKILLS

---

**Languages:** Java, Python, Haskell, SQL (Postgres, MySQL), C (+Linux), JavaScript, HTML/CSS  
**Frameworks:** React, Node.js, Spring Boot, JUnit  
**Developer Tools:** Git, VS Code, Postman, PyCharm, Eclipse  
**Libraries/Databases:** pandas, NumPy, Matplotlib, Seaborn, MongoDB