

Yash Rathi

Buffalo, NY | contactyashrathi@gmail.com |

<https://www.linkedin.com/in/yashrathi3110/> | <https://github.com/rathi-yash>

SKILLS

Programming Language: JAVA, Groovy, React, TypeScript, Python, C++, C, JavaScript, Tailwind

Technical Skills: GitHub Actions, Jenkins, Azure, AWS, Google Cloud, Tableau, PowerBI, Microsoft Office, Google Suite

People Skills: Critical Thinking, Problem-Solving, Conflict Resolution, Team Management, Prioritization, Collaboration.

EDUCATION

MS in Computer Science (Research Track) | *University at Buffalo, NY (GPA: 3.8 / 4)*

August 2024 - May 2026

B.Tech in Computer Science | *SRMIST, India (GPA: 9.2/10)*

August 2017 - May 2021

WORK EXPERIENCE

Software Engineer | *Optum (UHG), Gurugram, India*

November 2022 – July 2024

- **Full-Stack Development and Identity Access Management:** Worked as a full-stack developer, covering backend, frontend, infrastructure, and automation while specializing in Identity Access Management and adhering to SCIM standards. Mentored a team of college graduates for skill development and knowledge transfer.
- **Architecture Design and Deployment:** Designing and deploying architecture on Azure, setting up GitHub pipelines, designing new features, redesigning products, and conducting code reviews.

Associate Software Engineer | *Optum (UHG), Hyderabad, India*

July 2021 – October 2022

- **Enhancing Security and User Authorization:** Developed and implemented a role-based user authorization management system for 100,000+ users, significantly improving security and streamlining user authorization processes.
- **Developing Backend and Frontend Solutions:** Engineered and maintained robust backend and frontend solutions, ensuring high performance and user satisfaction.

Business Leader | *Corporate Gurukul, Bangalore, India*

January 2021 – July 2021

- **Business Development and Market Research:** Designed and executed analytics for studying business issues, including market research, scenario planning, and generating leads and opportunities through thorough market analysis, resulting in revenue of \$20,000.
- **Mentoring in AI Workshops:** Mentored a team and over 190 school students in a series of Artificial Intelligence workshops, fostering knowledge and skills in emerging technologies.

Research Assistant | *SRMIST, Chennai, India*

January 2020 - December 2020

- **Super Resolution GAN:** Employed Generative Adversarial Networks (GANs) to make a low-resolution input into a high-resolution output by making the image clearer and less blurry.

PROJECTS

MindVault: AI-Powered Bookmark Organizer

November 2024

- Developed an innovative Chrome extension with AI-driven bookmark categorization, winning Best AI/ML Project at UBHacking hackathon.
- Created a responsive dashboard using React, allowing users to access, manage, and perform CRUD operations on their organized bookmarks.
- Implemented a Flask backend with an AI clustering algorithm to automatically categorize bookmarks, ensuring efficient organization and retrieval.

Soccer Video Analysis using Computer Vision

July - August 2024

- Implemented real-time player and ball tracking using YOLO object detection and computer vision techniques
- Calculated key match metrics including possession, player speed, and distance using optical flow and perspective transformation
- Designed modular codebase integrating multiple CV libraries for improved maintainability and scalability

BitTorrent Client Implementation

October 2024

- Developed a BitTorrent client implementing peer-to-peer file sharing protocol, including .torrent file parsing and tracker communication
- Implemented Peer Wire Protocol (PWP) for efficient data exchange between peers, managing peer states and handling various message types

RESEARCH PUBLICATION

● Datta, Movva & Rathi, Yash & Cherian, Aswathy. (2021). "Wheat Awns Detection". 8th International Conference on Smart Computing and Communication. Indexed in IEEE Xplore.

September 2021

● Cherian, A.K., Poovammal, E., Rathi, Y. (2021). Improving Image Resolution on Surveillance Images Using SRGAN. Lecture Notes in Networks and Systems, vol 204. Springer, Singapore. Scopus Indexed.

June 2021

● Datta, Movva Nitin, Yash Rathi, and M. Eliazar. "Wheat heads detection using deep learning algorithms." Annals of the Romanian Society for Cell Biology.

May 2021