

# Shahid Shabeer Malik

Full-Stack Software Developer | AI/ML Engineer

[My Portfolio](#)   [LinkedIn](#)   E-mail: [shahid.malik@slu.edu](mailto:shahid.malik@slu.edu)

## SUMMARY

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Full-Stack Software Developer and AI/ML Engineer with experience building scalable applications using React, Flask, Django, Node.js, and ML models. Skilled in Agile workflows, microservices, REST APIs, Git, CI/CD, Docker, and Kubernetes. Passionate about creating clean, real-world solutions at the intersection of software development and AI.

## KEY PROJECTS

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### KashmirGPT Insight Trends Dashboard

- Developed a full-stack AI-powered dashboard using React, Flask, and OpenAI GPT-4 to deliver real-time insights on Kashmir across sectors like economy, tourism, agriculture, climate, and politics.
- Integrated ChatGPT for generating topic-based visual summaries and securely handled OpenAI API keys using environment variables.

### Resume Analyzer & Job Match System

- Built an intelligent web application using React and Flask that compares resumes with job descriptions using TF-IDF vectorization and cosine similarity
- Enabled PDF/DOCX uploads, optional job fetching via Proxycurl API, and delivered clean, responsive UI with Bootstrap.

### PulseCheck

- Developed a web-based feedback platform as a class project using React and TypeScript, facilitating peer evaluations and instructor monitoring in an educational setting.
- Implemented CI/CD pipelines and version control using Git to ensure streamlined development and deployment.

### Roomate4U

- Founded and Created a web-platform to connect room owners with students, used by hundreds of students from Jamia Millia Islamia and Jamia Hamdard University. Presented the related conference paper.

### Satellite Pose Estimation Using Event Cameras

- Led the development of a pipeline for satellite pose estimation, combining event data with Structure from Motion techniques, resulting in accurate 3D reconstructions for space applications and developed RNN models for frame reconstruction of events.

## TECHNICAL SKILLS

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- **Languages:** Python, JavaScript, Java, C++, PHP, HTML5, CSS3, SQL
- **Frontend:** React, Bootstrap, JavaScript, HTML/CSS
- **Backend:** Flask, Django, Node.js, Express
- **Databases:** MySQL, PostgreSQL, SQLite
- **DevOps/Tools:** Git, GitHub, Docker, Kubernetes, AWS, CI/CD
- **Frameworks/Libraries:** TensorFlow, PyTorch, Keras, OpenCV
- **Other:** REST APIs, ROS, ROS2, Unreal Engine, Agile/Scrum

## WORK EXPERIENCE

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### Graduate Research Assistant, SLUAIR Lab, Saint Louis University (Nov 2024 - Present)

- Developed real-time event-driven vision solutions for autonomous systems, integrating event data with RGB, IMU, and polarization sensors.
- Enhanced 3D reconstruction in low-light using event cameras and rotating polarization lenses.
- Engineered a pipeline for satellite pose estimation using SfM, MVS, and Gaussian Splatting.
- Developed RNN models for events to frame reconstruction on real event data.

### Teaching Assistant, Saint Louis University (Sept 2023 - May 2024)

- Assisted in Deep Learning and Applied Machine Learning courses by mentoring students, supporting neural network projects, and helping debug code.

### Project Lead, SLUAIR Lab, Saint Louis University

- Led a team in developing a computer vision project, fusing event and RGB data for enhanced feature tracking using Neural Networks.
- Managed and led my project team, conducted regular meetings, guided model design, optimized performance, and ensured timely project delivery.

### Summer Undergraduate Research Intern, IIIT Nagpur (Jun 2022 - Aug 2022)

- Implemented skin cancer detection using CNNs (InceptionV3, ResNet50, AlexNet) and segmentation methods.
- Achieved 0.80 IoU and 0.88 F1 using Otsu's method

### Summer Intern, Evision Technoserve, Noida, India (Jul 2019 - Aug 2019)

- Worked with AWS Cloud: storage, scaling, deployment, and web app deployment using Auto Scaling and Load Balancer.

## PUBLICATIONS

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- **Shahid Shabeer Malik**, Maryam Moshrefizadeh, Omar Tahri, Xiaoli Bai, Erik Blasch, Vasit Sagan, Hadi AliAkbarpour. *"EvSat3D: Satellite Pose Estimation and 3D Reconstruction with Event Camera."* IEEE Access (In submission).
- **S.S. Malik**, A. Khan, Dr. Sapna Jain, *"Roomate4U- An online platform that provides accommodation facilities to college students"*. I presented this research paper in the International Conference on ICT for sustainable development in Goa, India. It is published in the book series "ICT Systems and Sustainability" of Springer Nature.
- **Shahid Shabeer Malik**, *"Skin Lesion Segmentation using Active Contour, Otsu's Thresholding and K-Means Clustering: A comparative Analysis"* (Conditionally accepted for publication in IEEE Xplore).
- **Shahid Shabeer Malik**, Aneeqe Khan, *"Anxiety, Depression and Stress prediction among college students using Machine Learning Algorithms"* (Published at IEEE Xplore)

## EDUCATION

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- M.S Computer Science, Saint Louis University, St. Louis, Missouri, USA **(Sept 2023 – May 2025)**
- B.Tech. Computer Science and Engineering, Jamia Hamdard University, New Delhi, India **(Aug 2020 - Jul 2023)**
- Diploma in Computer Engineering, Jamia Millia Islamia University, New Delhi, India **(Aug 2017 - May 2020)**

## AWARDS & SCHOLARSHIPS

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- **Fully Funded Scholarship (2023–2024)**  
Awarded full tuition and funding by the Department of Computer Science, Saint Louis University for academic excellence.
- **Fully Funded Research Assistantship (2024–2025)**  
Received full funding through a Graduate Research Assistantship to contribute to research in AI, computer vision and robotics at SLUAIR Lab
- **Fully Funded Scholarship (2025–2026)**  
Re-awarded full tuition support by the Department of Computer Science for continued academic and research achievement.

## CERTIFICATES

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- **IBM Certified Full Stack Software Developer**  
Completed IBM's professional certification program covering full-stack development using React, Node.js, Express, Flask, Django, SQL, and Python. Gained hands-on experience in building, deploying, and securing modern web applications using Agile methodologies, CI/CD pipelines, Docker, Kubernetes, and microservices architecture.