Shahid Shabeer Malik

Full-Stack Software Developer | AI/ML Engineer
My Portfolio   **LinkedIn**   E-mail: shahid.malik@slu.edu

SUMMARY

Full-Stack Software Developer and AI/ML Engineer with hands-on experience building scalable, production-ready applications using React, Flask, Django, Node.js, and machine learning models. Proficient in full-stack development, RESTful API integration, cloud deployment, and ML pipelines. Skilled in Agile/Scrum workflows, microservices architecture, CI/CD, Git, Docker, and Kubernetes. Passionate about developing secure, responsive, and intelligent web solutions.

KEY PROJECTS

KashmirGPT Insight Trends Dashboard (Shahid1Malik/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 (Shahid1Malik/AI-Powered-Resume-Analyzer-Job-Matcher**)**

- 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 (Shahid1Malik/PulseCheck: A feedback Website**)**

- 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 developed 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

- **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

Graduate Research Assistant (AI/ML Research Engineer), 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 (Computer Vision | Full-Stack Developer), 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

- **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**, Aneeque Khan, "*Anxiety, Depression and Stress prediction among college students using Machine Learning Algorithms*" (Published at IEEE Xplore)

EDUCATION

- Ph.D. Computer Science, Saint Louis University, St. Louis, Missouri, USA (**Sept 2023 – Present)**
- 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

- **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.
- Best creative presentation award in Principles of Software Development Course in Saint Louis University **(Spring 2024**).

CERTIFICATES

- **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.