Shivam Kumar Jha

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Professional Summary

Passionate full-stack developer and AI enthusiast driven by the challenge of building innovative solutions that make a real-world impact. Specialized in MERN stack development and machine learning, with a keen interest in creating intelligent applications that solve complex problems. Thrive in leading collaborative teams and love turning ideas into functional, user-friendly products. Constantly exploring new technologies and pushing the boundaries of what's possible with code.

Education

SRM Institute of Science and Technology — Chennai, Tamil Nadu
Bachelor of Technology in Computer Science (AI & ML) – CGPA: 9.0/10 — *June 2023 – May 2027*

Technical Skills

Languages: Python, JavaScript, Java, C++, SQL, HTML, CSS
Frameworks & Libraries: React.js, Node.js, Express.js, PyTorch, TensorFlow, OpenCV, Scikit-learn, Streamlit, NumPy, Pandas, Matplotlib
Databases: MongoDB, MySQL, SQLite, MongoDB Atlas
Developer Tools: Git, GitHub, VS Code, Jupyter Notebook, Google Colab, Docker, Postman
Technologies: MERN Stack, RESTful APIs, JWT Authentication, Computer Vision, Deep Learning, CNNs, GANs, Transfer Learning, NLP, Prompt Engineering, Cloud Deployment (Netlify, Render, Streamlit Cloud)
Cloud & Other: AWS, SAP BTP, SAP Analytics Cloud, AutoCAD

Experience

Scrum Master & Backend Developer — December 2024 – Present
BrainMint Education Consultancy — *Chennai, Tamil Nadu (Remote)*

- Leading backend development and agile project management for an EdTech platform focused on web/app development and technical training
- Architecting scalable backend systems using Node.js and Express.js with MongoDB for multi-tenant architecture
- Managing sprint planning, daily standups, and cross-functional team coordination to deliver features on schedule
- Implementing RESTful APIs, authentication systems, and database optimization for improved platform performance

Research Intern – Agnirva Program — January 2025 – March 2025
Indian Space Research Organisation (ISRO) — *Remote*

- Conducted research on integrating machine learning algorithms into satellite systems for Earth observation and communication
- Analyzed telemetry datasets to identify opportunities for ML-driven automation in satellite operations
- Authored comprehensive technical report titled "Applications of Machine Learning in Satellite Functionality"

Projects

BudgetFlow – Multi-Tenant Finance Management Platform | *React, Node.js, Express, MongoDB, JWT* 2024

- Developed full-stack MERN application with secure multi-tenant architecture for personal and group finance management
- Implemented JWT and Google OAuth authentication with role-based access control for data privacy
- Built RESTful APIs for automated transactions, bulk upload, real-time tracking, and integrated AI chatbot for budget planning
- Deployed on Netlify and Render with MongoDB Atlas for scalable cloud infrastructure

OMR Evaluator – Automated Answer Sheet Grading System | *Python, OpenCV, Scikit-learn, Streamlit* 2024

- Achieved Top 10 finish at Code4tech Hackathon among 1000+ teams with automated OMR grading solution
- Engineered computer vision pipeline using OpenCV Perspective Transform to correct skew in phone-captured sheets
- Trained Logistic Regression model achieving 95%+ accuracy in classifying ambiguous bubble marks

- Deployed on Streamlit Cloud reducing manual grading time by 90% with production-ready web application

Prostate Cancer Classification using Deep Learning | *Python, PyTorch, DenseNet, EfficientNet* 2024

- Built automated cancer classifier achieving 95.05% validation accuracy using DenseNet121 on SICAPv2 dataset
- Implemented transfer learning with pretrained CNNs for binary and multiclass histopathology classification
- Conducted data preprocessing, augmentation, and GPU-accelerated training on Kaggle
- Co-authoring research paper under Dr. Illakiya T on AI applications in medical diagnostics

Dronacharya – Autonomous Drone Simulation | *YOLO, Python, OpenCV, Computer Vision* 2024

- Won 1st Prize at SRM Semiconductor Expo 2024 with YOLO-based object detection for autonomous drone navigation
- Integrated real-time facial recognition for search-and-rescue simulation scenarios
- Led end-to-end development from concept to deployment including computer vision pipeline and control systems

Certifications

AWS Cloud Foundations | AWS Machine Learning Foundations | Oracle Certified Foundation Associate | AICTE Google Virtual Internship (AI/ML) | AICTE AWS Virtual Internship (AI/ML) | MathWorks MATLAB Image Processing | Scaler DBMS Advanced