

Jaivardhan Shukla

+91 9555635019 | shuklajaivardhan3@gmail.com | [Linkedin](#) | [Github](#)

4Education

May 2025 **National Institute of Technology, Nagpur**
Bachelors of Technology (B.Tech)

Grade: 7.48 CGPA

Relevant Coursework: Numerical Linear Algebra, Probability Theory and Statistical Measures, Computer Programming, Machine Learning, Neural Networks and Deep Learning, Management Information Systems

4Experience

Bangalore, India May 2024 – July 2024 **Advanced Application Engineering Intern**
Accenture

- Conducted compliance testing and gained expertise in cybersecurity controls, enhancing the security posture of client systems by 15%.
- Participated in cybersecurity training programs, including compliance frameworks like ISO 27001 and NIST, ensuring alignment with industry standards.
- Collaborated with senior analysts to monitor and assess potential security threats, strengthening proactive threat management strategies.

Mumbai, India July 2024 – Present **Research Intern**
Indian Institute of Technology Bombay (IIT B)

- Optimized MATLAB code for sensor fusion techniques used in Pipeline Inspection Gauge (PIG) applications, improving the efficiency of data analysis on large datasets.
- Improved C++ code for efficient sensor fusion processing.
- Implemented Kalman filter in robotic systems for enhanced sensor accuracy.

Nagpur, India Sept 2022 – Oct 2022 **Android Development Intern**
Liveasy Logistics

- Developed a payment interface for the Liveasy trucker app, facilitating secure and efficient transactions for users.
- Managed back-end services through REST APIs, ensuring seamless integration with the front-end.
- Implemented a GPS tracking feature to monitor truck locations, improving operational logistics by 18%.
- Enhanced app modules by adding new features and fixing bugs, leading to a 5% increase in installations.

4Projects

Feb 2024 – Mar 2024 **Dynamic Incentive Optimization Platform**

- Developed a web-based platform integrating machine learning models for optimizing salesforce incentive compensation plans.
- Engineered predictive model (XGBoost) to analyze historical sales data and forecast key performance metrics.
- Designed an interactive dashboard using React.js and Flask for real-time incentive simulations and actionable insights.
- Implemented user authentication and secure data handling to ensure confidentiality of compensation-related data.

- Achieved a 10% improvement in plan effectiveness through data-driven recommendations.

May 2024 – July 2024 **Predictive Analytics System for Insurance Premium Estimation**

- Engineered a data pipeline and optimized regression models (Gradient Boosting, Ridge, Lasso) for predicting insurance premiums.
- Conducted feature engineering, hyperparameter tuning, and model evaluation, achieving an R^2 of 0.92.
- Deployed the solution using Docker and Flask for real-time predictions.

Sept 2020 – Dec 2020 **Alpha Browser**

- Designed a mobile web browser with features like QR reader, multitasking tabs, PDF view and save, and an "Article speaker" feature for converting web pages into speech.
- Achieved 5000+ installs on Google Play store.

Nov 2022 – Jan 2023 **UniTrack Attendance Management System**

- Created an attendance-taking system with Flutter, REST APIs, and AWS Amplify.
- Included teacher-side and student-side applications updating the NoSQL database using QR code scanning and facial recognition.

4Publications

Mar 2024 – Oct 2024 **Unveiling the Spine: A Machine Learning Odyssey for Vertebrae Detection** *ICML 2025*

- A comparative review of traditional CNN-based models like Unet, MANet, and modern Transformer-based architectures like Meta's Segment Anything-II for medical image segmentation.

Jan 2025 – Present **Deep Learning-Based Crack Detection in Concrete Structures** *Under Review*

- Developed a crack detection model using CNN and transfer learning to identify and segment cracks in concrete surfaces.
- Evaluated model performance using precision, recall, F1-score, and IoU metrics, achieving state-of-the-art accuracy.

4Technical Skills

Programming Languages: Java, Python, C, C++, JavaScript, Kotlin, Dart, XML, HTML
Frameworks and Libraries: Django, React Native, Flutter, TensorFlow, Keras, Node.js
Platforms and Tools: AWS, Arduino IDE, Firebase, REST API, Docker
Machine Learning: PyTorch, Neural Networks, Deep Learning, XGBoost, Pandas, Numpy

4Competitions and Awards

Google Hack4Change Hackathon, ISB Hyderabad: Finalist (Aug 2023)

Smart India Hackathon: Winner (Dec 2023)

NASA's Space Apps Challenge Hackathon: Winner (Oct 2023)

PRAGATI Hackathon: Finalist (Dec 2023)

Devfolio's Hack4India Hackathon: Winner (Oct 2023)

Girlsript Summer of Code: 7th out of 15000+ participants (May 2023 – Aug 2023)

Goldman Sachs India Hackathon: 87th out of 1100+ participants (Sept 2024)