

NIEL ABHISHEK J DAVID

+91 6360701051 • nielabhishek6265852@gmail.com • Bangalore 560 058

[LinkedIn](#) [GitHub](#) [Portfolio](#)

PROFESSIONAL SUMMARY

Computer Science Engineering student with hands-on experience in software testing, full stack development, cybersecurity, and AI/ML implementations. Proven expertise in test automation, cloud-native application development, machine learning model deployment, and security testing. Demonstrated ability to integrate DevOps practices, implement CI/CD pipelines, and develop scalable microservices architectures across diverse technology stacks.

EXPERIENCE

-
- ❖ **Intern | Indian Institute of Science (IISc), Bengaluru** *Feb 2025 – May 2025*
- Architected AI-driven microservices using FastAPI, React.js, and WebSockets for MagicMirror² project
 - Integrated Firebase for user authentication and Google Cloud for hosting and scalability.
 - Integrated Gemini LLM and Face-Recognition for personalized UX.
 - Developed cloud-connected CI/CD pipelines.
 - Followed Agile methodology with spring-based progress and cross-functional team and collaboration.

PROJECTS

-
- ❖ **MagicMirror² | AI-Powered Smart Mirror**
- Tech Stack:** FastAPI, React.js, WebSockets, Gemini LLM, OpenCV, Face-Recognition, Firebase,
- Engineered secure facial-recognition auth with OpenCV/ArcFace and PIN fallback via Firestore.
 - Integrated Gemini LLM for natural-language voice commands and context-aware outfit recommendations.
 - Managed per-user profile and wardrobe data in Firebase Authentication, Firestore & Storage.
- ❖ **Fashion Recommendation System**
- Tech Stack:** TensorFlow, EfficientNetB3, Flask, SQLAlchemy, MLflow, React
- Trained an EfficientNetB3 model achieving 92% body-shape classification accuracy.
 - Built Flask + SQLAlchemy REST APIs to serve personalized Amazon-sourced product recommendations, and wishlist features.
 - We used React for the frontend for faster loading and dynamic rendering of UI elements
- ❖ **Cloud-Based Attendance System**
- Tech Stack:** React.js, Node.js, Firebase Auth/Cloud firestore, CI/CD, GitHub Actions
- Built a responsive school attendance system with secure login, real-time updates via Firebase Firestore, and student profile management.
 - Implemented a modular backend with RBAC authentication and analytics dashboard to visualize attendance patterns.
 - Cloud-native solution automating attendance tracking with secure access and real-time updates.
- ❖ **Network Security Firewall Solution**
- Tech Stack:** Python, Tornado, Flask, Distributed Caching, Intrusion Detection Systems
- Designed a rule-based packet-filtering engine for real-time intrusion detection and threat blocking.
 - Implemented distributed caching to accelerate session and rule lookups, cutting latency by 30%.
 - Built admin UI for dynamic rule management and logging of suspicious traffic.

❖ Automated Examination System

Tech Stack: PHP, PHPUnit, MySQL, Selenium

- Developed online exam portal with secure login, real-time timers, and CRUD for questions/results.
- Engineered database testing solutions with transaction integrity validation.
- Implemented transactional database tests to ensure exam submission integrity..

EDUCATION

❖ **B.Tech in Computer Science Engineering**

PES University, RR Campus, Bengaluru

Jan 2023 – Present

CGPA – 7.73

TECHNICAL SKILLS

-
- **Programming Languages:** Python, Java, C, JavaScript, SQL
 - **Frontend Development:** HTML, CSS, React, Redux
 - **Backend Development:** Node.js, Express.js, FastAPI, Flask, Django, RESTful APIs, Microservices
 - **Database:** MySQL, MongoDB, PostgreSQL
 - **Machine Learning & AI:** TensorFlow, Pytorch, Scikit-learn, Keras, OpenCV, BERT, Transformers, NLP
 - **Cloud:** AWS (EC2, S3, Lambda), Firebase, Docker
 - **Cyber-Security Tools:** Wireshark, OWASP ZAP, Burp Suite, Metasploit, nmap
 - **Version Control:** Git, GitHub, GitLab, Jira, Scrum

CERTIFICATIONS

-
- Beginner's guide to Linux Kernel Development. ([Certificate](#))
 - AWS educate Introduction to Cloud. ([Storage](#), [Compute](#), [Serverless](#))
 - Jira Work Management Fundamentals Badge. ([Atlassian University](#))

ACHIEVEMENTS

-
- Silver Medalist – IndiaSkills Regional 2021 (Industrial Control)
 - 6th Place – IndiaSkills National 2022 (Industrial Control)
 - Gold Medalist – Karnataka Skills State 2021 (Industrial Control)
 - 8th Place – Kalpana Hackathon: Developed a disaster tracking and resource coordination system