# ALAN MINU

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## PROFESSIONAL SUMMARY

B.Tech Computer Science (Data Science) student, graduating 2028, with hands-on experience in full-stack web development and applied machine learning; skilled in Python, JavaScript, React, Node.js and SQL.

## EDUCATION

**Vellore Institute of Technology, Vellore** — July 2024 – 2028 (Expected)
B.Tech in Computer Science (Data Science) | CGPA: 8.98
**Delhi Public School Bangalore East** — June 2022 – April 2024 | Senior Secondary (CBSE) | 86%
**St Peter's School, Bangalore** — June 2020 – April 2022 | Secondary (ICSE) | 94%

## TECHNICAL SKILLS

- **Languages:** Python, Java, C++, C, JavaScript, TypeScript, SQL
- **Front-end:** React, Next.js, HTML, CSS
- **Back-end:** Node.js, Express, RESTful APIs, Authentication & RBAC
- **Databases:** MySQL, MongoDB
- **ML / Computer Vision:** OpenCV, MediaPipe, scikit-learn, pandas
- **Tools:** Git, GitHub, Vercel, Netlify
- **Core Concepts:** Data Structures & Algorithms (DSA), Object-Oriented Programming (OOP), Unit Testing

## WORK EXPERIENCE

**Software Engineer Intern — Qapla IT Services LLP** — May 2026 – July 2026
- Worked on features for a full-stack web application (React, Next.js, TypeScript, MySQL), applying SDE practices from design through implementation
- Designed and implemented RESTful APIs powering core back-end functionality and data flow between the UI and MySQL database
- Built secure authentication and Role-Based Access Control (RBAC), enforcing permission-based access across user roles

## PROJECTS

**FocusGuard — Real-Time Distraction & Drowsiness Detection** | Python, OpenCV, MediaPipe, scikit-learn | GitHub
- Built a webcam-based system detecting focused, distracted, drowsy and absent states for exam proctoring and driver monitoring, at ~74 FPS on a laptop CPU
- Cut false alarms from 930 to 8.7 per hour in benchmarks using time-based logic (Euro NCAP timing rules) and 8-second per-user calibration
- Evaluated on unseen drivers (random splits overstated accuracy by ~11 points); added 19 automated tests; runs on-device with no video stored

**TorqueBase — Garage & Asset Management for Student Racing Teams** | Node.js, Express, MongoDB, JavaScript | GitHub
- Built a full-stack app to manage vehicles, assets, inventory and maintenance for Formula Student teams, with a vanilla JavaScript single-page front end
- Designed a REST API with six route modules (members, vehicles, assets, maintenance, inventory, dashboard) covering CRUD, search and assignment workflows
- Modelled five MongoDB collections using $lookup, aggregation pipelines, compound indexes and full-text search; used atomic $inc updates for consistent stock levels

**Placera — Placement Preparation Portal** | React, JavaScript, CSS | GitHub | Live
- Built a responsive React app to track subject-wise preparation and log interviews, with an interactive dashboard and badge-based motivation system
- Deployed on Vercel with optimized performance and accessible, user-facing UI

**DataScript-ML — Compiler for Checked Machine-Learning Predictions** | Python, pandas, scikit-learn, Streamlit | Conference Paper (Co-author)
- Co-authored an IEEE-format paper on a controlled-English compiler that turns one-sentence requests into checked ML predictions; built in Python with a Streamlit interface and 32 unit tests
- Designed a four-module pipeline (parser, data-aware analyser flagging target leakage, explainable plan builder, pandas/scikit-learn engine); caught every injected fault on five public datasets

## CERTIFICATIONS

- IBM – Advanced Generative AI — IBM Career Education Program, July 2026

## LEADERSHIP & ACTIVITIES

**Student Coordinator (Sponsorship & MoU) — GraVITas 2026** — August 2026 – September 2026
- Pitched proposals and coordinated with companies to onboard sponsors for VIT's annual tech fest

**Student Volunteer (Sponsorship & MoU) — Riviera 2026** — January 2026 – March 2026
- Pitched sponsorship proposals and onboarded sponsors for a college fest attended by 40,000+ participants