

# Junaid Ahamed

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## SUMMARY

Computer Science Engineer certified by Anthropic and OpenAI, with experience in **backend development**, **machine learning**, and **embedded systems**. Skilled in designing **scalable APIs**, **database-driven applications**, **AI-powered solutions**, and **embedded monitoring systems** using **JavaScript**, **Python**, **PostgreSQL**, **Redis**, **React**, and **ESP32**. Strong foundation in **algorithms**, **databases**, **software architecture**, and **system design**, with practical experience delivering **production-oriented software** through internships, technical projects, and collaborative development environments.

## EDUCATION

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| Vellore Institute of Technology, Vellore Campus                                                                                                                                                                         | 2024 - Present |
| <ul style="list-style-type: none"><li>BTech in Computer Science Engineering.</li><li><b>CGPA: 8.81</b> out of 10.00</li></ul>                                                                                           | Semester 5     |
| Saint Francis DeSales School, Kerala                                                                                                                                                                                    | 2022 - 2024    |
| <ul style="list-style-type: none"><li><b>CBSE Class XII: A1</b> in All Subjects</li><li><b>JEE Mains 2024: 97.08</b> Percentile</li><li><b>National Defense Academy Exam 2024: Rank 3289</b> (Out of 800,000)</li></ul> |                |

## EXPERIENCE

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| <b>Mozilla Firefox Club, VIT Vellore</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | VIT Vellore         |
| Software Development and Technical Management Team                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Sep 2024 – Nov 2025 |
| <ul style="list-style-type: none"><li>Designed and executed <b>technical workshops</b>, <b>hackathons</b>, and <b>developer-focused events</b>, promoting knowledge sharing and increasing participant engagement within the university tech community through <b>hands-on learning experiences</b>.</li><li><b>Coordinated with multidisciplinary teams</b> to manage <b>event planning</b>, <b>technical infrastructure</b>, and <b>operational workflows</b>, ensuring smooth execution of high impact <b>technical initiatives</b> while maintaining effective resource coordination.</li><li>Formulated <b>software solutions</b> and <b>automation tools</b> to support event operations, streamline processes, and improve participant experience across multiple club activities enhancing <b>scalability</b> and <b>efficiency</b> for overall event management.</li></ul>                                                                                                                                                                                                                                                      |                     |
| <b>Docwo Pvt. Ltd.</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Ernakulam, Kerala   |
| Back-End Development Intern                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | May – July 2026     |
| <ul style="list-style-type: none"><li>Architected and deployed <b>core backend services</b> for an ambulance dispatch platform (<b>Node.js</b>, <b>Express</b>, <b>PostgreSQL</b>, <b>Prisma</b>, <b>Redis</b>), supporting patient, driver, and admin applications with <b>real-time ambulance discovery</b>, <b>booking</b>, <b>driver assignment</b>, and <b>live GPS</b>.</li><li>Hardened the platform with <b>JWT authentication</b> (refresh token rotation), Google <b>OAuth 2.0</b> integration, role-based access control, <b>rate limiting</b> on critical endpoints, and <b>AES 256 GCM encryption</b> for PII fields and <b>progressive OTP lockout</b> with attacker detection.</li><li>Built a comprehensive <b>admin dashboard</b> with <b>real time KPIs</b>, <b>growth reports</b>, <b>support tickets</b>, and full <b>CRUD</b>; engineered <b>automatic driver matching</b> (proximity search, accept/reject with timeout retry, escalation), <b>Socket.IO</b> live tracking, <b>transactional notifications</b>, <b>Swagger API</b> documentation, and production deployment on <b>Azure App Service</b>.</li></ul> |                     |

## PROJECTS

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| <b>Emotion-Based Song Recommendation System</b>   <a href="#">Source Code</a>   Python, Machine Learning, MediaPipe, TensorFlow                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <ul style="list-style-type: none"><li>Developed a real time <b>emotion detection system</b> using <b>facial landmark mapping</b> via webcam input using MediaPipe.</li><li><b>Trained a Machine Learning model</b> to classify emotions based on facial feature orientation using a Keras model.</li><li>Integrated TensorFlow to handle <b>neural network inference</b> in real time, <b>transforming landmark data to emotion classifications</b>.</li></ul>                                                                                                                                                                                                           |
| <b>Real-Time Keystroke Analysis and Typing Performance System</b>   <a href="#">Live Link</a>   <a href="#">Source Code</a>   React.js, JavaScript, CSS3, HTML5                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <ul style="list-style-type: none"><li>Built a <b>real-time typing test engine</b> with WPM and accuracy calculation using <b>character-level comparison logic</b> similar to typeracer.</li><li>Engineered <b>state-driven timer system</b> with <b>controlled input handling</b> and <b>event-based test lifecycle</b> management.</li><li>Created a <b>modular paragraph system</b> supporting <b>multiple difficulty levels</b> and structured content objects.</li><li>Optimized user interaction with keyboard shortcuts, focus management, and responsive UI components.</li></ul>                                                                                 |
| <b>AI-Powered Productivity Companion</b>   <a href="#">Live Link</a>   <a href="#">Source Code</a>   TypeScript, Gemini API, Firebase, React, Express.js                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <ul style="list-style-type: none"><li>Engineered an <b>AI scheduler</b> that <b>automates</b> task extraction from Gmail, calendar sync, and <b>intelligent gap analysis</b> using Gemini.</li><li>Built Excel export/import with <b>intelligent column mapping</b> and <b>direct local</b> and <b>deduplicated Google Drive sync</b>.</li><li>Developed notification engine with deadlines, voice input (<b>Web Speech API</b>), weekly productivity reports with Recharts visualizations.</li><li>Secured the app with <b>Firestore</b> rules, <b>scoped OAuth</b>, irreversible deletion, and a <b>full privacy policy</b> for <b>production readiness</b>.</li></ul> |

## ACHIEVEMENTS

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| 3 <sup>rd</sup> Place – Riddler CTF (Computer Society of India), among 750+ participants | Apr 2025 |
| 3 <sup>rd</sup> Place – Where's The Flag CTF (IEEE Computer Society), among 35+ teams    | Dec 2024 |

## SKILLS

- Programming Languages:** Python, C, C++, Java, Assembly, MATLAB
- Frontend Development:** HTML5, CSS, JavaScript, React.js
- Databases:** MySQL, PostgreSQL
- Core CS:** Data Structures & Algorithms, Design & Analysis of Algorithms, Database Management, Digital Systems Design
- Tools:** Bash, Git, GitHub, Embedded C, Prisma