







Syed Muhammad Ammar

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EDUCATION

• NED University of Engineering and Technology

Bachelor of Engineering in Software Engineering

Nov 2021 – Jun 2025

Karachi, Pakistan

PROFESSIONAL EXPERIENCE

• MatchMaker GME

Software Engineer

Apr 2024 – Present

New York, USA (Remote)

- Developed several full-stack web and mobile applications for education and academic evaluation.
- Implemented AI systems using LLMs for automated text analysis and content generation.
- Handled authentication, database design, and deployment of back-end and front-end services.
- Optimized database designs to cut data fetching costs by up to 25%.
- Automated processing of ~40k items by developing an ETL pipeline, structuring data and populating Db.
- Handled app publishing on Google and Apple stores, ensuring compliance with platform guidelines.
- Oversaw full product lifecycles while mentoring two developers and coordinating with stakeholders.

• MetaTalent.ai

Software Engineering Intern

Jan 2024 – Apr 2024

London, UK (Remote)

- Built ~20-screen admin panel with 3 custom dashboards, enabling full platform and user management.
- Developed several skill assessment features, implementing both front-end and back-end functionality.
- Designed RESTful APIs and optimized DB schemas for efficient data communication and management.

• Evincible Solutions

Software Engineering Intern

Aug 2023 – Sep 2023

Karachi, Pakistan

- Built an app and several interfaces using power apps and power pages, for smooth property assessments.
- Designed a chatbot for a hotel booking system using Power Virtual Agents, automating reservations.
- Automated business workflows and developed custom components, improving organizational efficiency.

ACHIEVEMENTS AND AWARDS

- **Code in Place'25 (Stanford University)** — Selected as Section Leader, taught programming to international students. [\[Link\]](#)
- **GreenCrop.ai (AgriSense)** — recognized among the **Best Projects of 2025** by the **UNESCO Chair at NED University**. [\[Link\]](#)
- Presented my work **GreenCrop.ai** at the **Climatech International Conference**, Karachi, Pakistan (January 2025). [\[Slides\]](#)
- **1st Place, IBA HackFest 2025** — led the winning team in a Shark Tank-style innovation competition. [\[Link\]](#)
- **Runner-up, IEEE YESIST12 Regional Finals** — presented **GreenCrop.ai** among top university teams from across the state in a highly competitive innovation challenge. [\[Link\]](#)
- **Runner-up, CodeSphere'23** – among 100+ participants in a departmental programming contest. [\[Link\]](#)

SKILLS

- **Programming Languages:** Python, JavaScript, C++
- **AI & Machine Learning:** LangChain, RAG, Fine-tuning, Agentic AI, Tensorflow / PyTorch(familiar)
- **Frameworks:** React, React Native, Next.js, Node.js, Express.js, NestJS
- **Database Systems:** PostgreSQL, MySQL, MongoDB, Firebase, VectorDB
- **Tools:** GitHub, Figma, Postman, UML, Latex

PROJECTS

• **GreenCrop.ai(AgriSense): AIoT-Enabled Smart Farming System**

Technologies: *React Native, TensorFlow, LangChain, NestJS, FastAPI, PostgreSQL, LLMs, ESP32, Azure, Hugging face*



- Developed ML models, including a disease detection module (92% acc), recommendation engine (95%).
- Created a decision-support system using generative AI with RAG for localized, context-aware insights.
- Architected an IoT device, integrating sensors, microcontrollers, and solar power for soil monitoring.
- Integrated voice-based AI models to enhance accessibility, expanding usability to millions of farmers.
- Designed 15+ screens, 12+ APIs, and deployed services across Azure and Render for smooth integration.
- Led a 4-person team, managing the product lifecycle and marketing the product by pitching at 5+ events.

• **ResearchRank: AI-Powered Student Ranking System**

Technologies: *ReactJs, JavaScript, OpenAI API, GitHub, Firebase, Vercel*



- Built a ranking system using publication metrics, personal statement, and recommendations.
- Integrated LLM for automated evaluation, with customizable scoring criteria and weightages.
- Engineered authentication, db schemas, and report generation for streamlined data handling.

• **ScrubHub: Medical Education App**

Technologies: *React Native, Firebase, Next.js, Netlify, Tailwind CSS, LLMs*



- Developed/deployed cross-platform app with personalized learning, and social collaboration features.
- Integrated LLMs to auto-generate 18,000+ questions and architected scalable db schemas.
- Managed product strategy and development, conducting feature research, evaluating technical trade-offs, and designing scalable data and UX structures aligned with user needs.

• **GoatLang: A Programming Language**

Technologies: *JavaScript, React, Node.js, Express.js, Babel, GitHub, Trello, Vercel*



- Developed a compiler to tokenize code, create an abstract syntax tree, evaluate and display output.
- Built a web-based ide for coding, and learning GoatLang with built-in resources.
- Created an AST visualizer to view how GoatLang processes code, providing insights into the AST.
- Applied data structures and object-oriented principles to design parsing and language components.
- Contributed to docs, i.e., proposals, requirement specifications, UML diagrams, and project reports.

VOLUNTEER & LEADERSHIP

• **CODE IN PLACE 2025, Stanford University**

Apr 2025 – Jun 2025

Section Lead

- Instructed virtual classes for a cohort of 10–15 students in **CS106A: Introductory Python Programming**.

• **Google Developer Group on Campus**

Oct 2023 – Jun 2025

Partnership Team Lead

- Recruited members, prepared proposals and established partnerships with companies and to fund events.
- Organized workshops and tech events for 300+ students, managing promotions and boosting attendance.

PUBLICATIONS

[1] GreenCrop.ai: Smart Solution for Precision Farming, and Resource Efficiency

S. Zardari, **S. M. Ammar**, M. Osama, S. Sahil, H. Shahid, M. Ullah

SoftwareX, 2025 (under revision).

[2] AI-Generated Code: Security Risks vs. Productivity Gains — A Systematic Review

S. Zardari, M. Osama, **S. M. Ammar**, A. Siddiqui, M. Gupta, A. Nanthaamornphong

Manuscript in preparation.

COURSES AND CERTIFICATIONS

- **Coursera(Stanford.ai):** Machine Learning Specialization (in-progress)
- **Coursera(Meta):** HTML and CSS in depth, React Basics & Advanced
- **Jawan Pakistan:** UI/UX Designing & Front-End Web Development
- **Frontend Masters:** Intro to Node.js, API Design in Node.js