

MUHAMMAD AMMAD

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SOFTWARE ENGINEER

linkedin.com/in/ammad-mughal/

Full-Stack Developer with **4+ years** of experience building scalable, responsive, and secure web applications. Proficient in **Next.js, React, TypeScript, Python, and Flask**. Skilled in **RESTful API** development, **database integration**, and **system architecture**.

Experienced in **integrating AI-powered features** using **OpenAI APIs** and machine learning models to enhance user experience and automate workflows. Passionate about delivering modern, high-impact solutions by combining web technologies and AI.

WORK EXPERIENCE

FRONT-END DEVELOPER

BROADPEAK TECHNOLOGIES

April 2025 - May 2025

- Joined Naranga to modernize its franchise platform, initiating migration from *monolith* to *microservices*.
- Built a modern UI using *React, Redux Toolkit, and Tailwind CSS*.
- Collaborated with DevOps and backend teams for seamless front-end *integration* with *RESTful APIs*.
- Planned a full-scale rollout with UX improvements, but project was paused due to closure of the Lahore branch within a month.

FRONT-END DEVELOPER

ENERGY AND SECURITY GROUP (LLC)

November 2022 - March 2025

- Developed a *role-based CRM* portal utilising *React, Redux Toolkit, SCSS* and *Material UI* having features:
 - Digitized manual consumer services, *reducing process time from months to hours*.
 - Implemented paperless workflows, *helping cut national carbon emissions*.
 - Added an Activity Log to *track application stages, time spent, and staff KPIs*.
 - Integrated with legacy billing systems to *reduce errors and speed up processing*.
 - Built an E-File system with *barcode search* for one-click access to consumer records.
 - Developed a *real-time complaint tracking interface* with *Google Maps API* and *KMZ layers*.
 - Displayed live feeder statuses, transformer data, and geo-tagged complaints on an interactive map.
 - Created a *monitoring dashboard* to boost field team responsiveness.
 - Used *lazy loading, throttling, debouncing, and Redux Toolkit* for performance optimization.
 - Secured the app with *JWT auth, SQL injection protection, CAPTCHA, and rate limiting*.
 - Trained 300+ field staff to ensure successful portal adoption.
 - Created *comprehensive technical documentation* for the portal using *JSDoc, streamlining support and simplifying maintenance*.

SOFTWARE ENGINEER

POWER INFORMATION TECHNOLOGY COMPANY

March 2020 - October 2022

- Developed a Store Inventory System (SIS) with a secure *JWT-based REST API (Flask)* and responsive *Jinja2* frontend.
- Re-engineered IBS and Power ERP, creating *BPMN/UML diagrams, database dictionaries, and architecture documentation*.
- Performed *CNIC data analysis* using *SQL Server and Power Pivot in Excel*.
- Deployed self-hosted web solutions (Power Meetings, Power Chat, GitLab Server, Help Desk) on Ubuntu and CentOS.

EDUCATIONAL HISTORY

BACHELOR IN COMPUTER SCIENCE
3.08 CGPA
INTERMEDIATE (PRE-ENGINEERING)
77% Marks
MATRICULATION (SCIENCE)
78% Marks

GCU, LAHORE
October 2015 – December 2019
GCU, LAHORE
March 2012 – May 2014
GCMS, LAHORE
January 2010 – February 2012

TECHNICAL SKILLS

- **Front-End:** React, Redux, Tailwind, SCSS, Material UI, TypeScript, JavaScript
- **Back-End:** Next.js, Python, Flask, RESTful APIs, Web-Sockets
- **Databases:** PostgreSQL, SQL Server, MongoDB, Supabase
- **Web Security:** JWT Auth, Next-Auth, reCAPTCHA, API Rate Limiting
- **Tools & Platforms:** Github, Docker, Jira, Slack

KEY PROJECTS

- **Crappo:** A responsive cryptocurrency website built with *Next.js*, *Redux Toolkit* and *Tailwind CSS* featuring a modern landing page, with user authentication using *Next-Auth*, newsletter subscription utilizing *MongoDB*, and smooth animations using *Framer Motion*.
- **SPM:** An indigenous, role based project management portal developed for a digital advertisement company utilizing *Flask*, *SQLAlchemy*, *Marshmallow* and *Postgresql* at the backend and *React*, *Tailwind CSS* and *Redux Toolkit* on front-end.
- **e-Operations:** The e-Operations web portal, a component of the Power Sector Improvement Activities (PSIA), served as a role-based interface for field operations developed using *React*, *Redux Toolkit*, *SCSS* and *Material UI*.
- **Kippax:** Developed a sleek, modern, and responsive website for a dynamic marketing agency. Built using *React*, *Tailwind CSS* and *Framer Motion* and *Loveable AI*, the site reflects the agency's creative brand with a bold, clean design and smooth user experience.
- **Codiniti:** An interactive website for a tech startup, showcasing company's profile in a visually appealing manner. Utilizing *React*, *Tailwind*, *Lattefiles* for animations and *Framer Motion* for smooth transitions, the website offered an engaging user experience.
- **Store Inventory System (SIS):** Web app built with *Flask*, *Python*, *JavaScript* and *Jinja2*, supporting full process of a standard inventory management business flow along with CRUD for items, categories, and suppliers, hierarchical stores.
- **Chatiniti:** A full-featured real-time chat application using *Flask*, *Flask-SocketIO*, and *PostgreSQL*. Chatiniti supports one-to-one and group chat, along with audio/video calls using WebRTC.
- **MEPCO Smart Web Portal:** Mepco Smart is a web portal developed as part of the Power Sector Improvement Activities (PSIA) using *React*, *SCSS* and *Material UI* for 33 million power consumers across Pakistan.

CERTIFICATIONS

Microsoft Certified - Azure Fundamentals

Microsoft

Artificial Intelligence & Computing (AIC)

PIAIC

Foundation of Project Management

Google - Coursera

Project Initiation - Starting a Successful Project

Google - Coursera

IBM Blockchain Essentials

IBM Developer Skills Network

IBM BLOCKCHAIN DEVELOPER

IBM Developer Skills Network

Overview of Datacenter Physical Infrastructure

Schneider Electric