# Muhammad Subhan

# Software Engineer | Full Stack developer

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### **EDUCATION**

# **University Of Education**

Township Lahore Sep 2021 - May 2025

B.S. in Computer Science

o Concentrations: Software Development & AI

o GPA: 2.9/4.00

o **Related Coursework:** Data Structures & Algorithms, Objects & Design, Programming, Artificial Intelligence, Object-Oriented Programming

### **EXPERIENCE**

#### Headstarter AI

Remote

Software Development Engineering Fellowship

July 2024 - sep 20

- Built and deployed 5 AI-powered projects in 5 weeks using React.js, Next.js, Firebase, Clerk, and Vercel, following agile methodologies with weekly sprints and implementing CI/CD for iterative deployment.
- Collaborated in a team of 3 to develop an interactive customer support agent using Next.js, integrating a custom Retrieval-Augmented Generation (RAG) pipeline with OpenAI and Pinecone, delivering real-time responses based on a company's knowledge base.
- Worked with 3 Fellows to build and deploy a SaaS product that dynamically generates flashcards using the Llama 3.1 LLM via the Groq API, with a paywall and custom pricing plans powered by the Stripe API.
- Developed a web scraper to extract data from Rate My Professor, upserting it to a Pinecone index, and integrated it with a RAG pipeline using LangChain and OpenAI GPT-4 for real-time query responses.
- Scaled each web application to over 200 users, continuously optimizing performance and incorporating user feedback for enhanced user experience.
- Focused on frontend development, gaining proficiency in Next.js and TypeScript, while also expanding backend skills through API integration and real-time data processing.
- Participated in weekly sessions with engineers from Google, Y Combinator, Stanford, Amazon, and venture-backed startups, gaining insights into cutting-edge technologies and industry practices.

### **HiSkyTech Solutions**

Remote

Aug 29 - Sept 30

Front End Developement Intern

• Developed responsive and dynamic user interfaces using HTML, CSS, JavaScript, and React.

- Collaborated with backend developers to integrate APIs and ensure seamless user experience.
- Optimized website performance and accessibility, improving page load times by 20%.
- Worked closely with the design team to implement pixel-perfect UI/UX components.
- Gained hands-on experience in debugging, code reviews, and Agile development processes.

#### PERSONAL PROJECTS

### **Pantry Tracker Management**

**Technologies:** Next.js, Firebase

- Developed a real-time pantry management application, allowing users to track, add, and update pantry items, using Firebase for data persistence and Next.js for a smooth user experience.
- Implemented responsive design to ensure usability on both desktop and mobile devices.

## **Team Member Allocation Technologies:** React, CSS

- Developed a web tool for assigning team members to projects, improving collaboration by automating the allocation process.
- Reduced project management complexity by implementing drag-and-drop functionality for easier task assignment.

### **E-commerce Platform**

Technologies: React, Tailwind CSS, Node.js, MongoDB

- Built a modern, responsive e-commerce platform with React and Tailwind CSS.
- Implemented backend API integration for seamless data fetching and real-time updates.
- Designed and connected a MongoDB database for product and user management.

### **ACTIVITIES AND LEADERSHIP**

### **Dev Weekends Community**

- Active member providing mentorship and technical training to students.
- Guided juniors in developing technical skills and personal growth.

### **SKILLS**

- JavaScript, HTML/CSS, SQL, React.js, C++, C
- Git, Github, Linux
- Mongodb, Express, Node.JS

## **Achievement and Certification**

- Certificate of Completion: Introduction to Career Skills in Software Development (LinkedIn)
- Certificate: UE IT Society Bootcamp
- **Certificate**: Completion of Object-Oriented Programming (OOP)
- Solved over 150+ LeetCode problems, showcasing problem-solving and coding proficiency