

Zakawat Abbas

Software Engineer

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Zakawat-Abbas

Professional Summary

Software Engineer with 3+ years of experience in full-stack web development, cloud computing, machine learning, and artificial intelligence. Expertise in building scalable serverless applications, optimizing APIs, and deploying ML models into production environments. Proficient in modern JavaScript frameworks (React.js, Next.js, Vue.js), Python, AWS services, and CI/CD pipelines. Proven track record of delivering high-quality software solutions for international clients across real estate, e-commerce, and data science domains.

Education

Oct 2019 – **Bachelor's Degree in Computer System Engineering**, NED University of Engineering & Technology, Karachi, Pakistan

Coursework: Data Structures and Algorithms, Software Engineering, Machine Learning & Artificial Intelligence.

Final Year Project: *Sign Language Recognition App* – Two-way sign language recognition system using React Native, CNN and Flask.

Technical Skills

Languages	Python, JavaScript, SQL
Frontend	React.js, Vue.js, Next.js, Angular.js, React Native, GatsbyJS
Backend	Node.js, Flask, FastAPI, Prisma.js
CSS/Styling	Tailwind CSS, Bootstrap CSS, Sass CSS
Databases	MySQL, MongoDB, PostgreSQL, Firebase, DynamoDB
Cloud & DevOps	AWS, Docker, CI/CD, GitHub Actions, DigitalOcean, Cloudflare
Web Tools	DNS, cPanel, WordPress, Liquid Web
Data Science	Machine Learning, Deep Learning, Data Analysis, Exploratory Data Analysis (EDA)
Data Mining	Beautiful Soup, Selenium
Other Tools	Git, GitLab, Power BI, Postman, VS Code, Telnyx

Professional Experience

- May 2025 – **Software Engineer**, CodeBit AI, United States (Remote)
 - Present ○ Designed and developed serverless applications using AWS Lambda, Python, and Next.js with CI/CD pipelines, collaborating with data scientists to integrate ML models into production.
- Jun 2024 – **Software Engineer**, H&S Real Estate, Karachi, Pakistan (On-site)
 - Oct 2025 ○ Developed, maintained, and optimized company websites enhancing performance, SEO, and user experience while managing deployment and DNS configuration.
- Jun 2024 – **Software Engineer**, Deca Properties, Karachi, Pakistan (On-site)
 - Oct 2025 ○ Developed and maintained responsive, SEO-optimized websites using React.js and Next.js, managing deployment pipelines and collaborating with design teams.
- May 2024 – **Frontend Engineer**, Rehani Soko, United States (Remote, Freelance)
 - May 2025 ○ Built and optimized dynamic front-end interfaces using Vue.js and React.js with reusable components, ensuring cross-browser compatibility and mobile responsiveness.

- Dec 2023 – **Full Stack Developer**, *F5-STUDIO*, United States (Remote)
Jun 2024 ○ Developed and deployed full-stack applications using React.js, Next.js, and Node.js with Tailwind CSS, integrating APIs for seamless data flow.
- Aug 2022 – **Software Engineer**, *Additech-Sim*, Stuttgart, Germany (Remote, Part-time)
Dec 2023 ○ Designed full-stack applications using Python and JavaScript while building ML models and implementing data pipelines for real-time insights.
- Jan 2022 – **Data Science Intern**, *Additech-Sim*, Stuttgart, Germany (Remote)
Jun 2022 ○ Enhanced Automatic Machine Learning Model Classifier and implemented Reinforcement Learning with Particle Swarm Optimization for optimization projects.

Selected Projects

YOLOv8 Object Tracking – Real-time object detection and tracking for videos and images using advanced computer vision. <https://github.com/Zakawat-Abbas/yolov8-object-tracking>

Sign Language Recognition App (FYP) – Two-way sign language recognition system using React Native, CNN, and Flask to help deaf community communication. <https://github.com/Zakawat-Abbas/SignLanguageProject>

Digital Meter Text Extraction – CNN-based automated text extraction from digital meters using computer vision. <https://github.com/Zakawat-Abbas/Digital-Meter-Text-Extraction>

Speech To Text Converter – Real-time audio processing and transcription using Google Speech to Text API. <https://github.com/Zakawat-Abbas/Speech-To-Text>

Stock Price Prediction – LSTM model for accurate stock price predictions aiding investors in decision-making. <https://github.com/Zakawat-Abbas/Stock-Price-Prediction>

Emotion Detection System – SVM-based AI system for emotion detection and analysis. <https://github.com/Zakawat-Abbas/Emotion-Detection>

GSM Arena Q&A System – DialogFlow-powered Q&A system for mobile specifications inquiries. <https://github.com/Zakawat-Abbas/GSMarena-QA>

NBA Records EDA – Exploratory data analysis extracting insights for data-driven basketball strategies. <https://github.com/Zakawat-Abbas/NBA-Records-EDA>

Publications

- 2024 **Zakwat Abbas**, et al. (2024). *Voice of Hearing and Speech Impaired People*. 2024 International Conference on Communication, Computer Sciences and Engineering (IC3SE), Amity University, Greater Noida, India (May 9-11, 2024). Published in IEEE Xplore. DOI: 10.1109/IC3SE62002.2024.10593248
IEEE Xplore: ieeexplore.ieee.org/document/10593248
ResearchGate: researchgate.net/publication/382494916

Certificates & Training

- 2024 **Certificate of Presentation** – IC3SE-2024, Amity University, India. Presented paper: "Voice of Hearing and Speech Impaired People"
- 2022 **Build AR Powered E-commerce Site Bootcamp** – Open Weaver
- 2022 **Python Programming | Numpy & Pandas Bootcamp** – Open Weaver
- 2022 **Data Science Internship Completion** – ADDITECH-SIM

Additional Information

- Languages English (Fluent), Urdu (Native)
- Interests Web Development, Machine Learning, Data Science, AI Applications
- Location Karachi, Sindh, Pakistan