

MUSTAFA BAYATI

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SKILLS

- AWS / GCP
- ExpressJS / NestJS / Typescript
- React / React-Native
- API / WebSocket / GraphQL / MQTT
- PostgreSQL / MySQL / DynamoDB / Redis
- SQS / Apache Kafka
- JAVA / Spring Boot
- PHP / Laravel

EXPERIENCE

Senior Software Engineer, Neuro Building Systems

Jan 2024 - Present Gastonia, NC

- Designed and deployed scalable AWS cloud solutions using Lambda, Cognito, Apache Kafka, API Gateway, PostgreSQL + TimescaleDB, S3, SQS and SNS.
- Implemented serverless architectures to ensure efficient and cost-effective IoT device integration.
- Developed real-time data streaming using MQTT, BACnet, Haystack, and industry-standard IoT communication protocols.
- Built and maintained high-performance user portal solutions using Node.js, PHP, and Java, along with React and Next.js, enabling intuitive data visualization and control interfaces.
- Leveraged edge solutions to streamline automation processes and create efficient, event-driven workflows across integrated systems.
- Implemented robust security best practices, including authentication, encryption, and access control.
- Built and deployed edge solutions, optimizing data processing and automation at the site level to reduce latency and improve efficiency.

Senior Backend Engineer, K16 Solutions

July 2022 - Oct 2023 Gastonia, NC

- Designed and developed large-scale data migration systems for educational organizations, enabling seamless real-time transfers of big data across different Learning Management Systems (LMS) using React, Express.js, and PostgreSQL.
- Architected and deployed event-driven microservices leveraging AWS tools such as Lambda, Step Functions, RDS, S3, API Gateway, and SNS/SQS to ensure high availability, scalability, and fault tolerance.
- Implemented AI content detection using GPTZero, enhancing the data migration pipeline by automatically classifying and filtering educational content during transfers.
- Optimized PostgreSQL database performance by implementing indexing, query optimization, and partitioning strategies, leading to faster data retrieval and improved system efficiency.
- Developed and maintained robust APIs and data pipelines, ensuring secure and efficient communication between different LMS platforms and third-party services.
- Led code reviews, mentorship, and best practice implementation within the engineering team, improving overall code quality and development standards.
- Collaborated cross-functionally with product managers, frontend engineers, and DevOps teams to deliver high-impact solutions tailored to client needs.

Full Stack Developer, Sentient Buildings

Mar 2018 – June 2022 New York, NY

- Designed and developed a real-time, cloud-based Building Automation System (BAS), enabling remote control, scheduling automation, issue detection, live status streaming, historical data reporting, and user management using React, Redux, Node.js, GraphQL, and Java (Spring Boot).
- Built and maintained scalable backend services and APIs, integrating microservices architecture and leveraging AWS tools such as Lambda, DynamoDB, S3, API Gateway, and IoT Core to enhance system efficiency and performance.
- Developed a cross-platform mobile application (iOS & Android) using React Native, allowing users to remotely monitor and control building equipment via an intuitive UI.
- Integrated with third-party data provider APIs and platforms like SkySpark and Niagara, enabling real-time data acquisition, analytics, and predictive maintenance for smart buildings.
- Implemented GraphQL API architecture, improving data fetching efficiency and enabling seamless integration between the frontend and backend.
- Enhanced system security and user authentication by implementing OAuth, JWT-based authentication.
- Worked closely with hardware engineers, data scientists, and DevOps teams to develop scalable and robust IoT solutions for smart buildings.

Full Stack Developer, Dyno Systems

Feb 2017 – Mar 2018 Charlotte, NC

- Designed and built CMS portals using PHP (Laravel), MySQL, HTML, CSS, and JavaScript, enabling customized content management, role-based access control, and seamless user experience.
- Optimized database performance by implementing indexing, stored procedures, and query optimization in MySQL significantly improving response times.
- Managed and maintained web hosting servers on Linux and Windows Server 2012/2016, ensuring high availability, security hardening, and automated backup solutions.
- Developed custom plugins and modules to extend CMS functionality based on client-specific requirements, improving flexibility and user engagement.

EDUCATION

University of Mosul, bachelor's degree (Accounting and Business Management) 2006 - 2010