Mohammad Jambar

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EDUCATION

University of Islamic Azad-West Branch | Tehran, Iran   2012-2017
Major: Electrical Engineering
Relevant Coursework: Data Structures, Software Design, Internet of Things, Embedded Systems
                        Beyond the cloud, Full Stack, Version Control, Data Science Specialization

TECHNICAL SKILLS

Languages: Python, JavaScript, TypeScript, SQL, HTML5, CSS, C

Developer Tools: AWS, Postman, Git, Docker, Prisma, Supa base, Power Bi, Azure, Jira

Libraries/Frameworks: Spring Boot, ReactJS, Next.JS, NodeJS, PostgreSQL, Vie.js, Flask, Django

Myant | Toronto, Canada   2021 - Present

R&D Software Engineering

- Developing **Python-based gateway systems** for real-time acquisition, processing, and transmission of **ECG** and **IMU signals**, ensuring **low-latency, reliable data flow** for wearable medical devices.
- Designing **modular signal-processing pipelines** with optimized algorithms and data structures, improving streaming performance and reducing memory usage by **30%**.
- Containerizing and deploying systems with **Docker** on **Raspberry Pi**, enabling **fault-tolerant, portable, and scalable execution** in distributed environments.
- Building **monitoring and logging frameworks** to detect anomalies, track system health, and maintain continuous uptime.
- Creating **real-time dashboards** for visualizing fatigue metrics and multi-sensor physiological data, improving insight accessibility for researchers.
- Developing **Python modules** for processing and analyzing neurostimulation data from **industry-scalable textile electrodes**, contributing to a publication in **Wiley Advanced**.
- Developing and deploying a **fatigue detection algorithm** using **IMU data**, implemented on **Raspberry Pi** with a **real-time dashboard**, generating **$500,000 in project funding** from the **Canadian Space Agency**.

Nobaf Persian | Tehran, Iran   2019 - 2020

Software Developer

- Built and maintained **backend services** and **REST APIs** using **Python** and **Django** to support application features and workflows.
- Participated in **architecture and design discussions**, selecting technologies for **scalable and maintainable systems**.
- Wrote **unit and integration tests** to ensure code reliability and maintainability.
- Troubleshot and resolved system issues, analyzing impacts on **databases (PostgreSQL/MySQL)**, servers, and network operations.
- Optimized backend performance and implemented best practices for **API design, authentication, and data handling**.

Adonis Company | Tehran, Iran   2017 - 2019

ATM System Software Development & Intern

- Assisting in developing **backend data pipelines** for ATM transactions, supporting logging, storage, and retrieval of financial and operational data using **MySQL**, **PostgreSQL**, and **AWS RDS**.
- Helping design and optimize algorithms and data structures for transaction handling, error detection, and recovery.
- Supporting the creation of **data aggregation and monitoring services** using **AWS S3**, **Redshift**, and **ETL tools** to assist reporting and analytics.
- Participating in testing, debugging, and optimization of data workflows to maintain **system performance and data integrity**.

ACTIVITIES & RECOGNITION

- Industry-Scalable Reusable Textile Electrodes for Neurostimulation Applications (Wiley Advanced).
- Developed a fingerprint-based electric lock system for University Competition.