

JOHN MILAN

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PROFILE

Computer Science student with strong foundations in Java development, Object-Oriented Programming, backend systems, and Artificial Intelligence. Experienced in developing REST APIs, database-driven applications, workflow automation systems, and machine learning models. Familiar with Spring Boot, Hibernate, clean code practices, and enterprise backend development.

EDUCATION

Lebanese American University (LAU)

2023 – 2026

BSc in Computer Science – Artificial Intelligence Track

- Private Tutor for Java and Python

PROJECTS

AI-Driven Predictive Maintenance for Offshore Wind Turbines

- Developed machine learning models using Python for predictive maintenance analysis
- Built and evaluated Random Forest and XGBoost models using industrial SCADA turbine data
- Achieved F1-score of 0.774 and ROC-AUC of 0.855 while reducing maintenance costs by 63.7%
- Applied data preprocessing, feature engineering, model evaluation, and anomaly detection techniques

Business Review Platform — Full-Stack Web Application

- Developed backend APIs and optimized MongoDB database interactions
- Built responsive frontend interfaces using React and JavaScript
- Implemented authentication, validation, and maintainable application workflows
- Applied Object-Oriented Programming concepts, debugging, testing, and clean code practices

UniMate — Full-Stack Smart Matching Platform

- Developed scalable backend services using Node.js, Express.js, PostgreSQL, and REST APIs
- Built secure JWT authentication systems and modular backend architectures
- Implemented AI-powered roommate matching and chatbot workflows using Gemini API and n8n
- Collaborated on debugging, testing, API integrations, and iterative feature development

Crisis Response and Relief Coordination Platform — Cloud Security Project

- Designed AWS cloud architecture and IAM security model for a crisis response platform
- Worked with AWS services including EC2, RDS, S3, Lambda, CloudWatch, and CloudTrail
- Explored scalable cloud-native architecture and infrastructure security concepts

EXPERIENCE

Casapa – Software Engineering Intern

Jun 2025 – Aug 2025

- Developed ERP modules using Python and the Odoo framework
- Implemented backend business logic, XML interfaces, ORM models, and workflow automation
- Collaborated on debugging, testing, deployment support, and optimization
- Worked with Git version control, Agile workflows, and maintainable backend architecture
- Assisted in improving system performance, scalability, and reliability

TECHNICAL SKILLS

- **Languages:** Java, Python, JavaScript, SQL, C++, C, PHP
- **Programming Concepts:** Object-Oriented Programming, Data Structures, Algorithms, Software Design Principles
- **Backend Development:** REST APIs, Spring Boot, Hibernate, Node.js, Express.js, Odoo, Laravel
- **Frontend Development:** React.js, HTML, CSS, Responsive UI Development
- **AI & Machine Learning:** Random Forest, XGBoost, Predictive Modeling, Anomaly Detection, Scikit-learn
- **Databases:** PostgreSQL, MongoDB, SQL
- **Cloud & DevOps:** AWS, Docker, Git, GitHub, CI/CD Concepts
- **Development Practices:** Debugging, Testing, Agile Development, Code Reviews, Maintainable Code
- **Concepts:** Backend Systems, Scalable Applications, API Integration, Workflow Automation

LEADERSHIP & ACTIVITIES

- Head Coach – Under 10/12/14/16 Futsal Team (AUST)
- Assistant Coach – Division 2 Futsal Team (AUST)