

IOANNIS BIVOLARIS

Software Engineer

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LinkedIn: linkedin.com/in/ioannis-bivolaris | GitHub: github.com/Johnbivo

Portfolio: bivolaris.com | Location: Thessaloniki, Greece | Military Service: Completed

Computer Science student (graduating June 2026) specializing in backend engineering and machine learning. Strong foundation in building scalable systems with Java, Python, and containerized architectures. Experienced in delivering production software for real-world clients.

TECHNICAL SKILLS

Languages: Java, Python, JavaScript, C++, PHP

Frameworks: Spring Boot, Spring Security, JavaFX, Flask

Databases: PostgreSQL, MySQL, MongoDB, SQLite, Redis

Testing: JUnit, Mockito, REST Assured

Tools: Docker, Git, Maven, Swagger/OpenAPI, Linux, Bash, JWT, REST APIs, gRPC, Hibernate JPA

PROFESSIONAL EXPERIENCE

Freelance Software Engineer

Medical Office Management System - Primary Care Clinic

June 2025 - August 2025

- Delivered production appointment scheduling platform serving 4 doctors with JWT authentication, role-based access control, and real-time conflict detection
- Architected RESTful APIs with Spring Boot, designed normalized PostgreSQL schema with 8+ tables, and deployed containerized application with Docker
- Built responsive vanilla JavaScript interface with Chart.js visualizations for appointment analytics and dynamic scheduling

3D Visualizer/Designer

GLC & Partners

June 2024 - September 2024

- Collaborated with engineering teams to deliver photorealistic architectural renderings using 3DS MAX and Corona while managing stakeholder expectations and project timelines

EDUCATION

Bachelor of Science in Computer Science

University of Derby

October 2023 - June 2026 (Expected)

Bachelor of Science in Animation & Interactive Media

Middlesex University

October 2019 - June 2022

KEY PROJECTS

IntelliMed Express - Hospital Management Platform (Team Project)

- Led 4-person team building hospital system supporting 6+ departments with patient management, appointment scheduling, and laboratory coordination
- Developed PyTorch ResNet-50 pneumonia detection model achieving 78% accuracy, deployed as Flask microservice for automated X-ray analysis
- Architected Spring Boot REST API with PostgreSQL and JavaFX frontend, implementing HTTPS encryption and role-based authentication

Technologies: Spring Boot, PostgreSQL, Python, PyTorch, JavaFX, Flask

Movie Recommendation System (Dissertation Project - In Development)

- Implementing hybrid recommendation system combining collaborative filtering and content-based approaches on MovieLens dataset
- Developing model evaluation framework using RMSE and precision@k metrics with planned Docker deployment

Technologies: Python, Pandas, NumPy, Scikit-learn, Surprise, Docker (planned)

Microservices E-Commerce Platform (In Development)

- Built 4 containerized microservices with gRPC/WebClient inter-service communication and Redis caching for product catalog
- Configured Spring Cloud Gateway with service discovery routing to backend services and planned ML recommendation integration

Technologies: Spring Boot, MySQL, MongoDB, Redis, Docker, gRPC

Pandemic Resilience System

- Developed full-stack web application with citizen registration, vaccination tracking, and resource distribution across healthcare facilities

Technologies: PHP, MySQL, HTML, CSS, JavaScript

Process Management System - Multi-threaded Application

- Developed Python application with socket programming, GUI interface, and RSA/AES encryption for secure data transmission

Technologies: Python, customTkinter, SQLite, Sockets

PROFESSIONAL DEVELOPMENT

Online Courses: Spring Boot & REST API Development, Docker Containerization, Full-Stack Web Development, Data Structures & Algorithms, SQL & Database Design, Design Patterns, Java, Python

Platforms: Udemy, Codecademy Pro, Code With Mosh

ADDITIONAL INFORMATION

Languages: Greek (Native), Bulgarian (Native), English (C1 Advanced - Proficient)

Certifications: Spring Boot Development, Docker Containerization, Advanced SQL & Database Design, Data Structures & Algorithms

Interests: Cloud-Native Architecture, Machine Learning, AI Integration, System Design