

Ioannis Bivolaris

Software Engineer

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🌐 [https://www.linkedin.com/in/ioannis-bivolaris] – Github [https://github.com/Johnbivo]

Personal Website Portfolio [https://bivolaris.com]

Military Obligations: Completed – City : Philippi Kavala/Thessaloniki

Languages: Greek Native/Bulgarian Native/English C1 Advanced (Cambridge Certificate)

TECHNICAL SKILLS

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

Frameworks: Spring Boot, Spring Security, JavaFX, Flask, customTkinter

Databases: PostgreSQL, MySQL, SQLite

Tools & Technologies: Docker, Git/GitHub, JWT, REST APIs, Hibernate JPA, HTML/CSS

OS: Windows, Linux Ubuntu

WORK EXPERIENCE

Freelance Software Engineer

1 June 2025- 1 August 2025

Appointment and Work Schedule Management System – ‘Συστεγασμένα Ιατρεία Πρωτοβάθμιας Φροντίδας Υγείας’

- Built production-ready appointment scheduling system serving active medical practice
- Implemented JWT authentication, role-based access control, and comprehensive security measures
- Developed RESTful APIs with Spring Boot and optimized PostgreSQL database design
- Deployed containerized application with Docker for scalable production environment

3D Visualizer/Designer | GLC & Partners

1 June 2024- 30 September 2024

Responsibilities:

- Collaborating with engineering teams to analyze requirements and implement iterative changes for photorealistic rendering solutions using 3DS MAX/Corona.

EDUCATION

Middlesex University

B.S. (Hons) Animation & Interactive Media October 2019 – June 2022

Related skills: 3D, UI/UX, Animation & Motion Graphics, Game development

University of Derby

B.S. (Hons) Computer Science October 2023 - Present

Skills: Data structures and algorithms, Software engineering, Database development, Artificial Intelligence, UX/UI, OOP Object-Oriented Programming, Desktop application development, Web application development, Requirements analysis.

KEY PROJECTS

Medical Office Management System (Production Freelance Project)

- Complete healthcare platform with appointment scheduling, doctor availability management, and patient records
- Advanced security implementation: Spring Security, JWT tokens, input sanitization, rate limiting
- Real-time features: live appointment booking, conflict detection, calendar synchronization
- Modern responsive web interface with Chart.js data visualizations and dynamic scheduling

- **Tech Stack:** Spring Boot, Spring Security, PostgreSQL, Hibernate JPA, Docker, HTML/CSS, JavaScript, Chart.js, Axios

IntelliMed Express (Team Project) - Hospital Management Platform
 Role: *Project Manager & Full-Stack Developer*

- Led 4-person team developing comprehensive hospital management system
- Integrated AI pneumonia detection model using chest X-ray analysis
- Built multi-department system handling appointments, patient records, and pharmacy inventory
- **Tech Stack:** Java Spring Boot, PostgreSQL, Python PyTorch, JavaFX

Process Management System - Multi-threaded Application with Encryption

- Developed Python application with socket programming and GUI interface
- Implemented RSA/AES encryption and SQLite database integration
- **Tech Stack:** Python, customTkinter, SQLite, Sockets

Pandemic Resilience System - Government Emergency Management Platform

- Web application for pandemic management with citizen access control and vaccination tracking
- Implemented government data support systems for emergency resource distribution
- Features citizen registration, store management, and vaccination monitoring capabilities
- **Tech Stack:** PHP, MySQL, HTML/CSS, JavaScript

Microservices e-commerce application – First experimentation with microservices and inter-service communication – in development

- Implemented multiple services that communicate using gRPC and webclient - all containerized.
- Most services have dedicated databases and use Redis from frequently used data.
- Reactive Gateway configuration and service discovery using yml.
- Next steps – Building the frontend, adding monitoring, resilience and machine learning for analytics and recommendation systems.

Tech Stack: Spring Boot, MySQL, MongoDB, Docker.

Dissertation – Design and implement a movie recommendation system using Collaborative, Content-Based Filtering and Hybrid Approaches

- Implement collaborative filtering and content-based algorithms
- Evaluate models using metrics such as Root Mean Square Error (RMSE) and precision@k
- Deploy models using Docker.

Tech stack: Python, Pandas, NumPy, Matplotlib, Seaborn, Surprise, Scikit-learn

SOFT SKILLS

- **Technical Leadership:** Led 4-person team through IntelliMed Express development, coordinating frontend/backend teams and designing API architecture for seamless integration
- **Stakeholder Management:** Worked with civil engineers and architects at GLC & Partners, adapting deliverables based on client feedback while maintaining project timelines
- **Rapid Learning:** Self-taught advanced Spring Security and JWT implementation to meet enterprise security requirements for medical office system
- **Cultural Adaptability:** Successfully transitioned between creative (3D visualization) and technical (software engineering) roles, bringing design thinking to development processes

PROFESSIONAL DEVELOPMENT

Udemy: Full-Stack Web Dev (Angela Yu), Web Dev Bootcamp (Colt Steele), Python Pro (Angela Yu), Java Spring Boot eCommerce (EmbarkX)

Codecademy Pro: SQL, Ethical Hacking, Git/GitHub, Spring, Java

YouTube: JavaFX GUI, Java, PHP, JavaScript (Bro Code), Machine Learning (Constantine Caramanis)

Code With Mosh: Spring Boot Fundamentals & REST API, SQL Mastery, Docker Mastery, Java Mastery, Design Patterns, Data Structures & Algorithms