# Aggelos Arelakis

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## ABOUT ME

Possessing a strong foundation in data structures and algorithms, my aim is to utilize and further refine these skills. Committed to adhering to best coding practices to ensure efficient and maintainable code.

## EDUCATION

**B.Sc. School of Informatics**
**Aristotle University of Thessaloniki - Faculty of Sciences - 11/2022**
Grade - 7.4/10

## MILITARY SERVICE

Technician of Wireless Communications - Hellenic Army – ELDYK - 01/2018 – 10/2018

- Served 7 months in ELDYK in wireless communication systems. Which helped develop discipline, teamwork, and technical problem-solving skills.

## LANGUAGES

Greek
proficiency in English

## PROGRAMMING LANGUAGES

Python | RegEx
Exposure to: Go | JS
Basic Exposure to: C++ | Java | R | SQL | PHP | Prolog

## WEB DEV TOOLS

Docker
Kraken (Reverse Proxy)
Playwright | React

## FRAMEWORKS

Django | Flask
FastAPI | Pydantic
TensorFlow | Keras
Tkinter

## EXPERIENCE

**COMMSQUARE - Python Engineer - 04/2025 - 10-2025**

- Refactored a legacy Python (Django 2.x → 5.x) codebase to modern standards, including full type annotations and architectural cleanup. Improved API performance by 32.9% in execution speed and reduced memory usage by 43.7% (≈0.5 GB saved). Also developed a new algorithm to dynamically generate SQL queries on demand, eliminating the need to rely on Django's ORM.

**VesselBot - Python Developer - 03/2024 - 03/2025**

- Developed high-quality web scrapers to extract data from PDFs, HTML, and JavaScript-rendered pages, using various techniques to intelligently bypass rate limits.
- Designed, maintained, and refactored APIs (Django), focusing on features such as registration, authentication, management, transaction processing, forget/reset password functionality and a referral bonus system.
- Leveraged technologies like Redis, Celery, Memcached, PostgreSQL, Docker, Kraken, and Git to ensure efficient performance and scalability.
- Worked extensively with geospatial data to enhance location-based features; built custom caching middleware to optimize performance, and thoroughly tested algorithms with comprehensive unit and integration tests. Also designed a flexible data parsing layer using TOML configuration files and a custom wrapper around Pandas to process and normalize company data efficiently. .
- Built a custom Python-based library ( 3k LOC) around an existing JMeter wrapper to programmatically generate performance test suites using Pydantic models and modular configuration patterns.

**Professional Development and Learning - 08/2023 - 03/2024**

- Followed courses on Frontend Masters, gaining foundational knowledge in JavaScript, HTML, CSS, and Go.
- Improved problem-solving skills by practicing algorithmic challenges on LeetCode, focusing on data structures and efficient coding techniques.

**LoopCV - Python Developer - 03/2023 - 07/2023**

- Developed and maintained various web scrapers, utilizing BeautifulSoup, Requests and Playwright.
- Built and maintained APIs using FastAPI and Pydantic, leveraging MongoDB and Redis for effective data management.

## ACADEMIC PROJECT HIGHLIGHTS

**Thesis/ICARUS** -

- Various Transformer models were fine-tuned and tested on real Twitter comments. using a divide and conquer approach, achieving ROUGE scores of (38/11/35) and BERT scores of 88%. Also a 3D convolution algorithm was developed in TensorFlow, on specific benchmarks MyConv achieved speeds of approximately 87µs while the tf.keras.layers.Conv3D layer stood at 125µs.

*Last updated November 10, 2025*
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