



# Orest Mucaj

## Computer Science Student

Currently pursuing a degree in Computer Science at the National and Kapodistrian University of Athens, with a strong focus on Machine Learning and Data Analysis, alongside a growing interest in Backend Engineering. I am actively seeking entry-level opportunities to fulfill my degree requirements and gain practical experience. I have successfully **completed my mandatory military service**, and I'm now fully committed to advancing my professional career.

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## EDUCATION

### Computer Science

Department of Informatics and Telecommunications, National and Kapodistrian University of Athens

*Expected Graduation: 2026*

## PERSONAL PROJECTS

### Sentiment Classification of Tweets (2025)

- Sentiment Analysis using **TF-IDF** with **Logistic Regression** – *Validation Accuracy: 0.8064*
- Sentiment Analysis using a simple **Feed Forward Neural Network** with **GloVe** embeddings – *Validation Accuracy: 0.8009*
- Sentiment Analysis using **BERT** – *Validation Accuracy: 0.8639*
- Sentiment Analysis using **DistilBERT** – *Validation Accuracy: 0.8489*

### Inter Process Communication Manager (2024)

- Developed a **C-based process management system** that dynamically spawns, terminates, and manages child processes based on file commands.
- Implemented **Inter-Process Communication (IPC)** using **shared memory and semaphores** for efficient, synchronized data exchange.

### Job Executor (2024)

- **Developed a multi-threaded C application** for the remote execution of Unix commands with controlled concurrency.
- **Built a client-server architecture** using **TCP/IP sockets** for asynchronous command submission and output delivery.
- **Implemented a thread pool with pthreads**, managing job allocation and concurrency with **condition variables** (producer-consumer model).

### Record Storage System (2024)

- **Designed and implemented a primary B+ Tree indexing system in C**, managing record storage and retrieval at the block level for a custom database.
- **Developed core B+ Tree operations**, including efficient insertion (handling splits and duplicate key rejection) and traversal-based search functionalities.

## SKILLS

Linux

Git

C

Python

NLP

Scikit-learn

PyTorch

## CERTIFICATES

Goethe-Zertifikat B1 (12/2017)

*Goethe-Institut e.V.*

Certificate of Proficiency in English (05/2017)

*University of Michigan*

## LANGUAGES

Greek

*Native*

Albanian

*Native*

English

*Full Professional Proficiency*

German

*Limited Working Proficiency*

## INTERESTS

Coding

Technology

Travelling

Finance

Football

Festivals

Volunteering