

Name: Alexander Argyriou, 25
Profession: Software Engineer, MSc(c)
Address: 25th Martiou 24, Pedini, Ioannina, Greece, 45500
Phone: +30-6979304819
E-mail: Alexander.k.Argyriou@gmail.com
Info page: [\[http\]](http)

SUMMARY

Software Engineer, MSc(c). Experienced in C++ & Java, working for German payroll at P&I AG. Developing, analyzing and maintaining a payroll engine based on millions of payslips per month using JavaEE & Drools. Passionist about software development through flawless source code. Modelized and developed a hybrid voxel map compression algorithm in C++ for image processing in 3D space, applied in CT scanners, presented as BSc thesis(honours), achieved 98% compression. Information systems enthusiast, currently mastering Spring framework and JavaEE. Machine Learning Algorithms explorer, love to code AI/ML algorithmic projects from scratch in C++ or with higher abstraction in Python. Self-motivated problem solver, enjoying to wrap my head around software architectural & engineering problems in order to provide solutions and gain experience in recurring situations. I hit the gym & hiking in my spare time.

COMPUTER SKILLS

Languages

- **Proficient in:** C, C++, Java, Python.
- **Familiar with:** C#, JavaScript, PHP, SQL.
- **New to:** Go, Rust

Software

- **Database/Server:** PostgreSQL, Oracle, MySQL, SQL Server, MongoDB, Apache, Xampp.
- **Framework:** Qt/C++, JavaFX, Java/Spring, C#.NET.
- **IDE:** Visual Studio, NetBeans, Eclipse, Spyder, IntelliJ.
- **Web Development Technologies(Stack):** html/css/JavaScript, jQuery, Bootstrap Java/Spring, Node.js, PHP/OOPHP, Atom, VS Code, WAMP.
- **AI/ML/DL, Big Data Technologies(Python):** IBM Watson, scikit-learn, Keras, TensorFlow, Hadoop, Spark, NoSQL.

Data Structures / Algorithms

- Strong and in-depth knowledge of the most common algorithms in many fundamental computer science fields.

- Solid Knowledge of 2D and 3D Image Compression. Proficient in Hybrid Quadtrees/Octrees & RLE algorithms and Hybrid Quadtrees/Octrees & B+ Trees algorithms.
- Good Knowledge of AI/ML concepts based primarily on Decision trees, Decision forests, Random forests and Neural Networks.

Other

- Object Oriented Analysis and Design.
- Algorithm Analysis and Design.
- AI/ML Applications Analysis and Design.
- Good Knowledge about Cloud Technologies and Architectures.
- Solid Knowledge of Object Oriented Patterns.
- Good knowledge about NLP(Natural Language Processing).

EXPERIENCE

Software Engineer, present.

P&I AG

- Analyzing & improving payroll engine functionality with JavaEE & Drools.

Software Developer & Battle Zone Communications System Operator, 8 months.

Hellenic Army

- Detecting bugs and improving the existing code for Hellenic Drones in C#.Net environment.
- Designed, developed and deployed a cross-platform graphical user interface in Qt/C++ for military files handling.

Computer Technician(internship), 6 months.

Dixons(SE.E.)

- Detecting and solving software/hardware related problems.

CERTIFICATIONS

- **Java & Spring Academy (120hrs)** – Athens Tech College.

EDUCATION

Neapolis University,

School of Economics, Business & Computer Science,

Department of Computer Science.

Pafos, Cyprus.

- **MSc(Diploma)** candidate – Information Systems. (1,5 years, 90 ECTS)

University of Western Macedonia,

School of Sciences,

Department of Informatics.

(Study program offered by Technological Institute of Western Macedonia.)

Kastoria, Western Macedonia, Greece.

- **BSc(Ptychion)** - Informatics Engineering, focused on Computer Engineering. (4 years, 240 ECTS)
- **BSc Thesis** - Hybrid binary voxel map compression based on volume subdivision and run length encoding, without power of 2 limitations (C++ approach). [[http](#) or [E-mail](#) or [Drive](#)].
- Degree obtained.

LANGUAGES

- **Hellenic** (Native)
- **English** (B2)

PROJECTS

- AI sentiment analysis and NLP(natural language process) project for over 6.000 "live" tweets about COVID-19. [[http](#)].
- (AI/ML) Decision Tree implementation in C++ using CART(Classification And Regression Trees) supervised learning algorithm. [[http](#)].
- Perceptron Neural Network for "Object" separation. [[http](#)].
- File Handling graphical user interface application, written in Qt/C++, for "local", temporary and fast usage from army's computers. [[http](#)].
- A mini sorting "library", C++ approach, using the fastest sorting algorithms compared by sorting speed, in both parallel and serial "environments". [[http](#)].
- C++/WinRT AI/ML Computer Vision Project for object detection through Window's AI APIs and SqueezeNet pre-trained deep neural network. (C++ Console Application) / (Gui deployed in Qt/C++). [[http](#)].
- Simple TCP Server & Client Implementation in C++/Boost, Java. [[http](#)].
- Voice Commands, Recognition and Reply (C#.NET GUI application). [[http](#)].
- A Modern Shopping Cart using html, OOPHP, bootstrap css framework, and XAMPP. [[http](#)].
- Minimal web application for real time multi-object recognition and detection through ml5.js machine learning API and coco-ssd pre-trained model. [[http](#)].

- Simple voice translator app in python alongside with IBM's Watson AI light versions for NLP. [[http](#)].
- AI/ML C++ Implementation of k-nearest neighbors supervised learning algorithm. [[http](#)].