# Vaios Papaspyros - Curriculum Vitae

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Date of Birth

28<sup>th</sup> April 1994

Bitbucket

Sithub https://github.com/bpapaspyros
https://bitbucket.org/bpapaspyros

**Nationality** Greek

### **Experience**

June 2017 - Applied Mechanics Lab, Mechanical Eng. & Aeronautics dept., University of Patras, Greece

Present Research Engineer

Research Topic: Unmanned Heterogeneous Swarm of Sensor Platforms.

Funding: European Defense Agency "EuroSWARM" Project.

May 2016 - Inria Nancy Grand-Est, LARSEN/Resibots Team, Nancy, France

Oct 2016 Research intern

Internship Title: Intelligent Trial & Error with the iCub humanoid robot.

**Research Topic**: Robot damage recovery with safety constraints.

**Supervisor**: Jean-Baptiste Mouret. **Funding**: ERC "ResiBots" Project.

Related Publications: "Safety-Aware Robot Damage Recovery Using Constrained Bayesian Op-

timization and Simulated Priors".

### **Education**

# Sep 2012 - Computer Engineering & Informatics Department, University of Patras Greece Present Undergraduate Student

CEID offers a 5 year undergraduate program which is a master equivalent (300 ECTS). During these five years is offered a wide variety of computer engineering and science courses, including lab hours and course projects concerning main problems of the computer science field. Main interests in the area of programming, AI & machine learning and algorithm design.

Costeas-Gitonas School, Athens, Greece

July 2012 High School | Final Grade: 19.2/20

Became acquainted with the field of computer science, earning the International Certificate in IT skills (Cambridge) and ECDL core diplomas. Furthermore, I studied basic HTML and C programming as a part of the computer science course.

#### 2013 - Online Courses

#### Present Coursera, MIT Open Courseware, Stanford Center for Professional Development

I have attended over 10 courses covering a wide range of topics such as Machine Learning, Software Engineering, Android Development, Parallel Programming, Linear Algebra, Computer Architecture, Data Structures, Digital Signal Processing, etc.

#### **Activities**

# Oct 2012 - ROBOTICS CLUB (POLYMECHANON TEAM), University of Patras, Greece

Feb 2014 Member

Worked on developing a graphical user interface using ROS for the project "Polymechanon". Developed more programming skills in accordance with guidelines followed by the community. Gained a lot of useful knowledge about version control systems and code documentation. Furthermore, I studied the basics in the theory of robotics, including basic forward and inverse kinematics.

#### **Publications**

PEER-REVIEWED WORKSHOPS

Safety-Aware Robot Damage Recovery Using Constrained Bayesian Optimization and Simulated Priors, Vaios Papaspyros, Konstantinos Chatzilygeroudis, Vassilis Vassiliades, Jean-Baptiste Mouret, BayesOpt 2016: Proceedings of the International Workshop on "Bayesian Optimization" at NIPS 2016 | Supplementary Video.

## **Projects**

**PROGRAMMING** 

■ C/C++ -

- **Co-author to robot\_dart**, a policy based, highly templated C++11 generic robotics simulator ideal for evolutionary computation.
- **Contributor to limbo**, a highly templated C++11 Bayesian optimization framework.
- University assignments requiring extensive use of the *Boost*, *LEDA*, *OpenMP*, *CUDA* and *OpenCL* C/C++-APIs. Furhermore, assignments focusing on C++ object oriented design & programming, *OpenGL* graphics, data structures, sorting algorithms, HTTP request parser, posix threads, TCP/IP server-client implementations.
- **Python** Implementations including the Aho-Corasick algorithm and genetic programming problems. Plenty of experience with matplotlib, numpy and the waf build system.
- Java/Android University assignments including swing and JavaFX development. Android applications including micro controller communication.
- **SQL & JDBC** University assignments combining SQL database design & implementation as well as GUI support through JavaFX and JDBC (for SQL database handling).
- Matlab/Octave University assignments for the Scientific Computation and Digital Telecomunications (quantizer, huffman code, PCM, FSK, PSK implementations) courses. Furthermore, assignments for the online course Machine Learning (Coursera).
- HTML/CSS/PHP/Javascript Simple mailing list manager (with a simple interface) using the campaign monitor php API.

MACHINE LEARNING AND ROBOTICS

- Interested in advancing in this field.
- $\blacksquare$  Research intern at Inria Intelligent Trial & Error with the iCub humanoid robot.
- Worked on developing a GUI for the "Polymechanon" project.

# **Competitions**

■ **IEEExtreme9.0** (Oct 2015) Team "Tokyooo" | Ranked top 25% worldwide.

## **Skills**

ADVANCED: C/C++(11), Python, Java, Matlab/Octave, ETeX, bash scripting, Object Oriented Design &

Programming, Policy-based design

**INTERMEDIATE**: Robot Operating System (ROS), OpenMP, CUDA, OpenGL, MySQL & Sqlite, HTML 5, CSS,

PHP, Javascript

## **Certificates**

■ English - Proficiency Level (C2), Cambridge Certificate

■ French - DELF (B2), International Centre for French Studies

European Computer Driving Licence (ECDL)

■ International Certificate in IT Skills

# Languages

Greek: Native

ENGLISH: Fluent - Professional working proficiency

French: Limited working proficiency

#### **Interests**

■ Machine Learning ■ Artificial Intelligence

ProgrammingBasketballRoboticsMusic/Guitar