Spyridon (Spiros) Baxevanakis

Aiginiou 4, Larissa, Thessaly, Greece

🛘 (+030) 698 446 4754 | 🔀 sprbax@gmail.com | 🏕 spirosbax.com | 🖸 spirosbax | 🛅 spirosbax | 🗲 @spirosbax | 🕏 Spiros Baxevanakis

Summary.

Experience in simulation of natural phenomena, machine learning, stochastic processes and time series **Computational Scientist**

analysis.

Early Stage Researcher Two years experience in research laboratories, have co authored three peer reviewed articles and preprints.

Software Engineer Over 3 years of software engineering experience, individually and in teams.

Quick Learner Able to apply previous knowledge in order to learn new concepts. Have worked with a lot of different tools.

Enjoy cooperation and have successfully collaborated with teams of researchers, software engineers and

volunteers.

Research Interests

Statistics & Applied Mathematics

Team Plaver

Deep Reinforcement Learning, Transfer Learning, Unsupervised Learning, Artificial General Intelligence, **Artificial Intelligence**

Multi-task Learning, Collective and Emerging Intelligence, Evolutionary Algorithms

Biology & Medicine Personalized Medicine, Artificial Intelligence in Biomedicine, Computational Neuroscience

Statistical Inference, Time Series Analysis and Forecasting, Mathematical Modeling and Simulation of

Dynamical Systems, Computational Physics

Current Positions and Positions Held_____

Undergraduate Researcher

Corfu, Ionian Islands, Greece

COMPUTATIONAL MODELING LABORATORY (CMODLAB), IONIAN UNIVERSITY

Jun. 2018 - Jun 2020

- Research and development of cellular automata models for simulating dry metal friction, a project collaboration with the Georgia Institute of Technology. Extensively studied tribology and the friction process.
- Supervised a team of three undergraduate students in the process of creating lab software and visualization tools.
- Assisted in the development of machine learning models for the prediction of fruit fly population using multi-year population datasets.
- · Administrator of the lab's databases.
- Under the supervision of Prof. Markos Avlonitis and Prof. Ioannis Karydis.

Software Engineer Intern

Corfu, Ionian Islands, Greece

CREATIVE WEB APPLICATIONS (CWA)

Jul. 2019 - Sep. 2019

- · Created an automated preprocessing and data management system to be used by the Computational Modeling Laboratory, Ionian Uni-
- · Created MySQL databases for storing multi-year datasets containing fruit fly population and environmental data to be used by the Computational Modeling Laboratory, Ionian University.

Formal Education

Dept. of Informatics, Ionian University

Corfu, Ionian Islands, Greece

Oct. 2016 - June. 2020 (Expected)

BSc in Informatics

GPA: 8.92

• Thesis: "Stochastic Processes and Methods in Computational Physics". Thesis Committee: Markos Avlonitis, Panayiotis Vlamos, Themis Exarchos.

Further Education _

Neural Networks and Deep Learning

Coursera

DEEPLEARNING.AI

August 2020

· Certificate available here.

Pandas KAGGLE

Kaggle August 2020

· Certificate available here.

Julia Scientific Programming

University of Cape Town December 2019

· Completed with Honors.

· Certificate available here.

UNIVERSITY OF NICOSIA (UNIC)

Introduction to Digital Currencies

UNIC Moodle Platform

July 2018

Coursera

Fundamentals of Neuroscience Part 3: The Brain (mcb80x)

HARVARD UNIVERSITY

June 2017

EDX

Fundamentals of Neuroscience, Part 2: Neurons and Networks (mcb80x)

EDX July 2017

Fundamentals of Neuroscience, Part 1: The Electrical Properties of the Neuron (mcb80x)

EDX

HARVARD UNIVERSITY

HARVARD UNIVERSITY

July 2017

Artificial Intelligence (CSMM.101x)

Coursera

COLUMBIA UNIVERSITY

December 2017

Extracurricular Activity _____

IEEE Student Branch of the Ionian University

Corfu, Ionian Islands, Greece

PRESIDENT & FOUNDER

Oct. 2018 - May 2020

- · Coordinated a large team of IEEE members to organize interdisciplinary talks, workshops, seminars and positively impact the student community.
- · Organized and taught a course titled "Introduction to Programming with Python" to freshmen. Course material available here.

Publications & Preprints _____

Towards a Personalized Multimodal System for Natural Voice Reproduction

SMAP Conference

STELIOS GAVRAS, SPIROS BAXEVANAKIS, DIMITRIS KIKIDIS, EFTHYMIOS KYRODIMOS AND THEMIS EXARCHOS

2020

- · Awaiting proceedings.
- · PDF available here.

A Machine Learning Approach for Gender Identification of Greek Tweet Authors

PFTRA Conference

Spiros Baxevanakis, Stelios Gavras, Despoina Mouratidis and Katia Lida Kermanidis

2020

- View on ACM Digital Library.
- · PDF available here.

Solving Atari Games Using Fractals And Entropy

arXiv:1807.01081

CEREZO, S. H., BALLESTER, G. D., & BAXEVANAKIS, S.

2018

· PDF available here.

Presentations _____

5th IEEE Hellenic Students and Young Professionals

PRESENTER FOR < IEEE STUDENT BRANCH OF IONIAN UNIVERSITY>

Democritus University of Thrace,

Xanthi, Greece

8-10 Nov. 2019

• Presented the work of the IEEE Student Branch of Ionian University.

Honors & Awards

1st Place, 5th IEEE Hellenic Students and Young Professionals

Democritus University of Thrace, Xanthi, Greece

BEST POSTER COMPETITION 2019

Conferences and Workshops

5th IEEE Hellenic Students and Young Professionals

ATTENDEE

Democritus University of Thrace, Xanthi, Greece

8-10 Nov. 2019

12th Mediterranean Conference on Information Systems

MEMBER OF THE ORGANIZING COMMITTEE

Ionian University, Corfu, Greece

28-30 Sept. 2018

Panhellenic Symposium on Oceanography and Fisheries

MEMBER OF THE ORGANIZING COMMITTEE

Ionian University, Corfu, Greece

30 May - 3 Jun. 2017

Medical Physics and Biomedical Engineering

MEMBER OF THE ORGANIZING COMMITTEE

Ionian University, Corfu, Greece

6 - 10 Nov. 2017

21st Pan-Hellenic Conference on Informatics

ATTENDEE

University of Thessaly, Larissa, Greece

28 - 30 Sept. 2017

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Skills_

Machine Learning

Supervised, Unsupervised & Reinforcement Learning Algorithms (Sklearn, TensorFlow, OpenAlGym), Data

Preprocessing (Pandas, NumPy), Natural Language Processing (NLTK)

Computer Science

 $Web\ Scraping\ (Octoparse, urllib 2), Time\ Series\ Analysis, Stochastic\ Processes, Calculus, Probability\ Theory,$

Statistics

Programming Languages

Notable Software

Interpersonal / Soft Skills

Languages

Python, Julia, Mathematica, C, Go, C++

Linux, Latex, MySQL, Vim, Bash

Team Leadership, Project Coordination and Planning, Thinking outside the box, Rapid Prototyping

Greek (Native), English (C2 Proficient), French (Basic)