

# Spyridon Baxevanakis

RESEARCHER · SOFTWARE ENGINEER

Kanalia - Kalithea, 49100 Corfu, Ionian Islands, Greece

☎ (+030) 698 446 4754 | ✉ sprbax@gmail.com | 🏠 spirosbax.com | 📷 spirosbax | 📱 spirosbax | 📺 spirosbax | 📺 spirosbax | 🐦 @spirosbax | 🎓 Spiros Baxevanakis

## Summary

<b>Researcher</b>	Experience with computational mathematics, stochastic processes, dynamical systems, and statistics.
<b>Software Engineer</b>	Over 3 years of software engineering experience, individually and in teams.
<b>Programming Polyglot</b>	Have worked with a lot of different programming languages and tools. Always use the best tool for the job.
<b>Project Manager</b>	Successfully supervised and coordinated teams of researchers, software engineers and volunteers.

## Research Interests

<b>Self-Organizing Systems</b>	Collective intelligence, behavior emergence, cellular automata.
<b>Computational Physics</b>	Mathematical modeling, simulations of physical phenomena, statistical mechanics, nanotechnology.
<b>Data Science and Statistics</b>	Machine learning models, statistical inference, stochastic processes.
<b>Computational Biology</b>	Evolutionary algorithms, genomics, computational biomodeling.

## Current Positions and Positions Held

### Researcher

Corfu, Ionian Islands, Greece

COMPUTATIONAL MODELING LABORATORY, IONIAN UNIVERSITY

Jun. 2019 - Present

- Researching surface roughness estimation via machine learning methods.
- Research, development, simulation and statistical analysis of Cellular Automata models for describing dry metal friction, project collaboration with Georgia Institute of Technology.
- Supervising a team of three undergraduate students in the process of creating lab software and visualization tools.
- Developed machine learning models for the prediction of fruit fly population using multi-year population datasets.
- Created MySQL databases for storing multi-year datasets containing fruit fly population and environmental data.

### Researcher

Corfu, Ionian Islands, Greece

BIOINFORMATICS AND HUMAN ELECTROPHYSIOLOGY LABORATORY (BiHELAB), IONIAN UNIVERSITY

Dec. 2019 - Feb. 2020

- Research non invasive methods for evaluation of coronary artery diseases.
- Explored mathematical models for Atherosclerotic Plaque development.
- Experimented with blood flow simulation (CFD) and Navier-Stokes equations.

### Research & Development Intern

Corfu, Ionian Islands, Greece

CREATIVE WEB APPLICATIONS (CWA)

Jul. 2019 - Aug. 2019

- Extensively studied the friction process and the statistics of tribology.
- Developed easy to use automation and data preprocessing tools.
- Assisted on MySQL database and Debian server administration.

## Formal Education

### Dept. of Informatics, Ionian University

Corfu, Ionian Islands, Greece

B.S. IN COMPUTER SCIENCE AND INFORMATICS

Oct. 2016 - June. 2020 (Expected)

- Focused in Mathematical Modeling, Stochastic Processes, Bioinformatics.
- Thesis: "Stochastic Processes and Methods in Computational Physics".

## Further Education

### University of Cape Town

Coursera

JULIA SCIENTIFIC PROGRAMMING

2019

- Certificate

### University of Nicosia (UNIC)

UNIC Moodle Platform

INTRODUCTION TO DIGITAL CURRENCIES

2018

<b>Harvard University</b> FUNDAMENTALS OF NEUROSCIENCE PART 3: THE BRAIN (MCB80X)	<i>EDX</i> 2017
<b>Harvard University</b> FUNDAMENTALS OF NEUROSCIENCE, PART 2: NEURONS AND NETWORKS (MCB80X)	<i>EDX</i> 2017
<b>Harvard University</b> FUNDAMENTALS OF NEUROSCIENCE, PART 1: THE ELECTRICAL PROPERTIES OF THE NEURON (MCB80X)	<i>EDX</i> 2017
<b>Columbia University</b> ARTIFICIAL INTELLIGENCE (CSMM.101X)	<i>Coursera</i> 2017

## Extracurricular Activity

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<b>IEEE Student Branch of Ionian University</b> PRESIDENT & FOUNDER	<i>Corfu, Ionian Islands, Greece</i> Oct. 2018 - Present
<ul style="list-style-type: none"> <li>Coordinate a large team of IEEE Members to organize interdisciplinary talks, workshops, seminars and positively impact the student community.</li> <li>Organized and taught the "Introduction to Programming with Python" course for freshmen.</li> </ul>	

## Preprints and Technical Reports

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<b>Solving Atari Games Using Fractals And Entropy</b> CEREZO, S. H., BALLESTER, G. D., & BAXEVANAKIS, S.	<i>arXiv:1807.01081</i> 2018
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## Presentations

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<b>5th IEEE Hellenic Students and Young Professionals</b> PRESENTER FOR <IEEE STUDENT BRANCH OF IONIAN UNIVERSITY>	<i>Democritus University of Thrace, Xanthi, Greece</i> 8-10 Nov. 2019
<ul style="list-style-type: none"> <li>Presented the work of the IEEE Student Branch of Ionian University.</li> </ul>	

## Honors & Awards

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<b>1st Place, 5th IEEE Hellenic Students and Young Professionals</b> BEST PRESENTATION COMPETITION	<i>Democritus University of Thrace, Xanthi, Greece</i> 2019
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## Conferences and Workshops

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<b>5th IEEE Hellenic Students and Young Professionals</b> ATTENDEE	<i>Democritus University of Thrace, Xanthi, Greece</i> 8-10 Nov. 2019
<b>12th Mediterranean Conference on Information Systems</b> MEMBER OF THE ORGANIZING COMMITTEE	<i>Ionian University, Corfu, Greece</i> 28-30 Sept. 2018
<b>Panhellenic Symposium on Oceanography and Fisheries</b> MEMBER OF THE ORGANIZING COMMITTEE	<i>Ionian University, Corfu, Greece</i> 30 May - 3 Jun. 2017

## **Skills**

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<b>Mathematics</b>	Stochastic differential equations, Dynamic Systems, Bayesian Statistics, Probability Theory, Cellular Automata
<b>Programming languages</b>	<b>Julia</b> , Python, Mathematica, C, Go, C++, Java, JavaScript, Solidity.
<b>Software Tools</b>	Jupyter, Vim, Juno, Bash.
<b>Others Technologies</b>	<b>Linux</b> , SQL, MySQL, HTML5/CSS3, React.js, Vue.js.
<b>Interpersonal Skills</b>	Team Leadership, Project Coordination, Team Communication, Project Organization.
<b>Languages</b>	Greek (Native), English (C2 Proficient), French (Basic).