

Kyriakos Chatzidimitriou, Ph.D.

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Profile

A versatile **software developer** and **machine learning researcher** with professional experience in software architecture and quality assurance, methodical, research-savvy, with proven ability to combine vision, ingenuity and leadership qualities. Efficiently solving complicated problems, while leveraging cross-functional collaborations and developing state-of-the-art approaches. Areas of **expertise** include:

- Data Engineering
- Software Architecting
- Oral/Written Communication
- Big Data
- Software Development
- Team Building & Leadership
- Artificial Intelligence
- DevOps
- Project Management

Employment

Sr Quality Assurance Engineer, source{d}, Remote

Oct. 2019 – Now

Duties

- Integration and performance testing of a GitHub GraphQL crawler [Tech stack: golang/testify, GraphQL, Travis, GitHub Actions]

Fellow Researcher, Software Architect & Instructor, ISSEL, AUTH, Thessaloniki, Greece

2012 – Sep. 2019

Key Achievements

- Lead participant in competitive grant proposal writing that secured €3.3 million
- Spearheaded the creation of Cenote, an open source Big Data Management System for event-based analytics that is capable of handling thousands of requests per second from Web of Things clients. [Tech stack: node.js, React.js, MongoDB, Docker, Kafka, Storm, CockroachDB, Redis]
- Guided the team to gather over 3 million gestures from more than 2K users and developed machine learning models of behavioral biometrics with a 5% false rejection rate and immediate attacker recognition
- Got the 2nd place in the codrep-2019 competition on spotting formatting errors in code
- Co-authored a book on “Practical Machine Learning with R”, 5 journal articles and 7 conference papers
- Co-supervised more than 45 diploma thesis, master thesis students with a focus on machine learning

Duties

- Mentoring, coaching and leading a team of 8 PhD students and developers
- Architecting software solutions, team and consortia coordination and writing deliverables in National and European funded R&D projects: eeRIS (energy), VITAL (IoT), SEAF (energy), Mobile-Age (software) and S-CASE (software)
- Managing the research directions on a privately funded project on behavioral biometrics on touch devices
- Researching on machine learning for software engineering
- Teaching undergraduate and postgraduate courses in the areas of Software Engineering, Data Mining and Big Data Analytics

Co-founder, Managing Partner and Full stack developer, Cyclopt P.C., Thessaloniki, Greece

2017 – Jun. 2019

Key Achievements

- Developed software quality (ISO 25010) benchmarks for JavaScript after mining and analyzing more than 330 million lines of code
- Won the 5th prize at the 8th innovation and technology competition “NBG Business Seeds” out of 361 participants (2018) and the 2nd place at the 10th innovation competition “e-nnovation” out of 100 participants (2017)

Duties

- Managing the company and the product development
- Acting as a full-stack developer of Cyclopt’s web applications, mining infrastructure and open source packages. [Tech stack: node.js, React.js, MongoDB, Heroku, RabbitMQ, Git]

Duties

- Working as a full stack developer on the MEAN stack (MySQL, Express, Angular.js, Node) to build an Energy Management Analytics SaaS for business buildings
- Researching on sensor fault diagnosis with auto-associative neural networks

Key Achievements

- Co-authored 4 journal articles and 12 conference papers
- Won the 1st place at the international Trading Agent Competition, Ad Auctions game, with autonomous agent Mertacor (2012)
- Received the Excellence Scholarship Award for PhD candidates, Research Committee, AUTH (2009)

Duties

- Leading the tech partners in the European-funded project Cassandra (FP7) and privately funded projects (on telemedicine, on machine learning on retail data etc.)
- Researching on automated machine learning (AutoML) and reinforcement learning for trading and game playing agents
- Supporting the quality assurance activities of the Electrical and Computer Engineering department
- Teaching undergraduate courses on Software Engineering, and Data structures

Education & Trainings

PhD in Electrical and Computer Engineering, Aristotle University of Thessaloniki (AUTH), 2012

Dissertation: “Reinforcement Learning and Evolutionary Computation Mechanisms for Autonomous Agents”

Master of Science in Computer Science, Colorado State University, 2006

Thesis: “Robust and Interpretable Statistical Models for Predicting the Intensification of Tropical Cyclones”,
Grade: 4.0/4.0

5-year Diploma in Electrical and Computer Engineering, AUTH, 2003

Thesis: “Design and Development of a Multi-Agent System for Managing the Supply Chain”

Rank: 2nd out of 194

Deep Learning Nanodegree, Udacity

Instructor Certification, Software Carpentry and Data Carpentry

Life-long learning through online courses: Fractals and Scaling • Big Data Integration and Processing • Big Data Modeling and Management Systems • Introduction to Big Data • Learning from Data • How to Build a Startup • Social Network Analysis • An Introduction to Interactive Programming in Python • Introduction to Complexity • Digital Analytics Fundamentals • Introduction to Databases • Neural Networks for Machine Learning • Engineering Long-Lasting SaaS • Machine Learning

Skills

Web Development	MERN & MEAN stacks (MongoDB, Express, AngularJS, React, Node.js), REST API modelling and development, Cloud tech (AWS, Heroku PaaS, Firebase), applied web application security, BDD, TDD
Software Development	git, CI/CD systems, Docker
Programming Languages	JavaScript, Go, Python, R, Java, C#
Machine Learning	keras, h2o, various R libraries, scikit-learn, numpy, pandas, tensorflow
Databases	SQL language, MySQL, Postgresql, MongoDB, CouchDB, Cassandra
Big Data	Map-Reduce, Hadoop, MongoDB, Spark, Kafka, Storm, Cassandra, RabbitMQ