Christina Zacharoula Chaniotaki

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Education

University of Southern California (USC) *Los Angeles, California*
Ph.D. in Computer Science *Aug 2023 – present*

- **GPA:** 3.67
- **Research Interests:** Program Analysis, Software Testing, Web Services.
- **Advisor:** Prof. William G.J. Halfond.

Athens University of Economics and Business (AUEB) *Athens, Greece*
MSc in Information Systems *Oct 2019 – Jan 2022*

- **GPA:** 3.5 (8.74/10) – "Distinction."
- **Thesis:** *"An Empirical Investigation of Boilerplate Code,"* supervised by Prof. Diomidis Spinellis.

Athens University of Economics and Business (AUEB) *Athens, Greece*
BSc in Management Science and Technology *Sep 2014 – Oct 2018*

- **GPA:** 3.71 (9.28/10) – Ranked 1st of 48 students in cohort.
- **Major:** Software Engineering and Data Science.
- **Thesis:** *"DNA – Distributed Network Architecture,"* co-authored with Konstantinos Kopanidis and supervised by Prof. Panos Louridas, Prof. George Xylomenos and, asst. Prof. Dimitris Mitropoulos.

Professional Experience

Amazon AWS *New York City, New York*
Applied Scientist II (Intern) *May 2025 – present*

- AWS Proactive Security Detective Tooling (PSDT) team.
- **Artemis**: Detecting authorization issues through source code analysis using AI-agents.
- **Manager:** George Argyros.
- **Co-worked with:** Saeed Nejati, Yingjun Lyo, and Ben Smith.
- **Tech Skills:** Python, Java, Static Analysis, Agentic AI, APIs, Coral Services.

University of Southern California (USC) *Los Angeles, California*
Graduate Teaching Assistant (Part-time) *Aug 2023 – May 2025*

- **Spring 2024, 2025:** CSCI 310 - Software Engineering, Prof. William G.J. Halfond: Maintaining grade records, overseeing the re-grading processes, peer evaluation, returning grades, and preparing and presenting a lecture about Security.
- **Fall 2023, 2024:** CSCI 530 - Security Systems, Prof. Clifford Neuman: Answering questions regarding lectures and assignments, grading assignments and exams, and holding office hours.

Graduate Research Assistant (Part-time)

- **Summer 2024:** Working on an Empirical study for Web Accessibility, with Dr. Paul Chiou and Prof. William G.J. Halfond.

European Banking Authority (EBA) *Paris, France*
Senior Software Engineer (Full-time) *Feb 2023 – Jun 2023*

- **Anti-money Laundering Platform:** Maintenance and development of the web application.
- **Egate:** Maintenance and development of the Competent Authorities Notification system.
- **Tech Skills:** Java, Angular, Docker, MongoDB, CSS.

APINTECH *Limassol, Cyprus*
Senior Software Engineer (Freelance) *Feb 2023 – Jun 2023*

- **UtilAI:** Architecture design, implementation, and development of a web platform for managing energy facilities of buildings.
- **Tech Skills:** JavaScript, Java, Angular, Quarkus, Docker, TypeScript, Figma, Minio, Elastic, SQL, CSS, HTML5, Python.

UBITECH LTD *Athens, Greece*
Senior Software Engineer (Full-time) - Team Leader *Jun 2022 – Feb 2023*

- **ResearchHUB:** Design, implementation, and development of a web platform that aggregates data for research projects in the United Arab Emirates.
- **eu-LISA:** Graphical design and development of the Greek Entry-Exit System for border control.
- **Vikelaia Audiovisual:** Development of the website that houses a collection of Cretan culture.
- **Tech Skills:** Quarkus, Angular, Docker, Elastic, MongoDB, Vue.js, Minio, Figma, Node.js, SQL, CSS.

UBITECH LTD *Athens, Greece*

Senior Software Engineer (Full-time) *Aug 2020 – Jun 2022*

- **Dehems:** Graphical design, implementation, and development of a platform for monitoring patient records and experiments on HIV or COVID blood samples.
- **Kampos Chiou:** Development of the website that presents a historical region in Chios.
- **Co-Museum:** Re-development of the website that hosts international conferences for Benaki Museum.
- **Infinitech:** Development of a PoC for a Consent Management System for Banking Services.
- **Tech Skills:** Spring-boot, Quarkus, Angular, Docker, Elastic, Vue.js, Minio, Figma, SQL, MongoDB, CSS.

UBITECH LTD *Athens, Greece*

Software Engineer (Full-time) *Nov 2018 – Aug 2020*

- **ICARUS:** Design and development of the back-end system and the desktop application for an aviation industry-sensitive data processing and marketplace platform.
- **SPIDER 5G Cyber Range:** Design the graphical interface of the training platform.
- **DESTINY:** Design the graphical interface of the platform that handles digital medical processing.
- **Tech Skills:** Spring-boot, Angular, Docker, Elastic, MongoDB, Minio, Figma, Node.js, SQL, CSS, WordPress.

Oracle *Athens, Greece*

Back-end Developer (Contractor) *Summer 2018*

- Maintenance and development of the back-end system for managing billing and user information in the Hellenic Telecommunications Organisation.
- **Tech Skills:** Java EE, OracleDB, Web Services.

Cardlink *Athens, Greece*

Full Stack Web Developer (Intern) *Spring 2018*

- **Cardlink Pulse:** Design and development of the platform for managing data and information of merchant e-shop businesses.
- **Tech Skills:** MEAN stack (Angular, MongoDB, Node.js), Docker, Python.

Quintessential SFT *Athens, Greece*

Software Engineer (Freelance) *Aug 2017 – Jul 2019*

- **Cardlink Chatbot:** Development of a customer support service chatbot.
- **Cloudnous:** Development of a Cloud-Based SaaS billing analytics platform.
- **GAMS Visualization:** Development of a platform for excel data visualization.
- **Tech Skills:** MEAN stack (Angular, MongoDB, Node.js), Docker, Chatbot (MS Bot Framework).

BUTLAIR - Doobbear *Athens, Greece*

Junior Back-end Developer (Freelance) *Feb 2017 – Mar 2018*

- **BUTLAIR:** Design and development of the back-end system.
- **Doobbear:** Development of a voice application based on Amazon Alexa.
- **Tech Skills:** JavaScript, Node.js, SQL, MongoDB, Express.js, Flask Ask, Alexa Skill Kit, Python.

Peoplecert *Athens, Greece*

Training Assistant at 2nd Coding Bootcamp (Part-time) *Apr 2017 – Jul 2017*

- Assisting students with issues and questions related to web development technologies.
- **Tech Skills:** HTML5, CSS3, Java, JSP, Bootstrap, Servlets, Git, JavaScript, jQuery.

Freelance *Athens, Greece*

Web Developer *Oct 2015 – Dec 2016*

- **Tech Skills:** WordPress, HTML5, CSS3.

Research Experience

Software Quality Lab (SQL), USC *Los Angeles, California*

Research Assistant (Part-time) *Aug 2023 – present*

- **Research area:** Program Analysis, Software Engineering, Web Accessibility, Software Testing, Web Services.
- **Advisor:** Prof. William G.J. Halfond.

BALab, AUEB   *Athens, Greece*

Research Assistant (Part-time)   *Feb 2021 – Jun 2023*

- **Research area:** Boilerplate code, Code cloning, Clone detection, Boilerplate survey, Categorization.
- **Advisor:** Prof. Diomidis Spinellis.

Centre of Planning and Economic Research   *Athens, Greece*

Research Assistant (Full-time)   *Jun 2015 – May 2016*

- Econometric analysis, on elements of the country's workers using STATA tool from 2008–2015, supervisor: Prof. P. Prodromidis.

Management Science a Technology (DMST)   *Athens, Greece*

Participant (Part-time)   *Oct 2014 – May 2015*

- Development of mathematical methods using Matlab to solve Numerical and Systems Equations. Supervised by Prof. P. Lappas.

Publications

Journals

J1 N.D. Sakkas, S. Yfanti, P. Shah, N. Sakkas, **C. Chaniotakis**, C. Daskalakis, M. Domnich, E. Barbu. *"Explainable approaches for forecasting building electricity consumption."* Published at Multidisciplinary Digital Publishing Institute - Energies (2023).

Conference Publications

C1 N. Sakkas, **C. Chaniotaki**, N. Sakkas, C. Daskalakis. *"Building data models and data sharing. Purpose, approaches, and a case study on explainable demand response."* Published at Emerging Concepts for Sustainable Built Environments (SBEFIN 2022).

C2 **C. Chaniotaki**, P. Prodromidis. *"The trade sector and regions that displayed an increase in employment during the recession (2008–2015)."* Presented at the 19th Scientific Conference of the Association of Greek Regionalists (2016).

C3 P. Lappas, E. Kritikos, **C. Chaniotaki**, C.T. Lardopoulou, and A. Gotsi. *"An Educational Scenario in the context of Scientific Process: Numerical Solution of Equations and Systems of Equations using Cognitive Tools."* Presented at the 12th Department of Management Science and Technology (DMST) Student Conference (2015).

Teaching Experience

University of Southern California (USC)   *Los Angeles, California*

Instructor   *Mar 2024*

- **One-hour lecture** about "Security from Implementation Perspective" in the course CSCI 310: Software Engineering under the supervision of Prof. William G.J. Halfond in a class of 200 students.

Redondo Union High School   *Redondo Beach, California*

Instructor   *Oct 2023*

- From Greece to Los Angeles: My Journey

Freelance   *Athens, Greece*

Tutor   *Sept 2018 – May 2023*

- Learning programming and mathematics for high school and master students.

Tech Connect - AUEB   *Athens, Greece*

Instructor   *Feb 2022 & Feb 2023*

- **One-hour technical training session** on *"Building web applications with Java and React."*

UBITECH LTD   *Athens, Vitina, and Kalavrita, Greece*

Instructor   *Nov 2021, Feb 2020, and Feb 2019*

- **Three-hour seminar** session on *"Angular Framework Architecture, Structure, and Best Practises with examples."*
- **One-hour seminar** for *"Design Patterns."*
- **One-hour seminar** session on *"Chatbots."*

Department of Management Science and Technology (DMST), AUEB *Athens, Greece*

Guest-lecture *Spring 2018 & 2019*

- **Four four-hour lectures** on how to *"Design a Mobile App From Scratch"* under the supervision of Prof. George Lekakos in a class of 100 students.
- Content creator of the assignment.
- Answering questions and helping students with their assignments.

Scientific Technology Conference from IEEE Student Branch *Lamia, Greece*

Instructor *Dec 2018*

- **One-hour seminar** session on *"How to Create a Cloud Application with Firebase and Angular."*

Management Science and Technology Conference (DMST), AUEB *Athens, Greece*

Instructor *Feb 2017*

- **One-hour workshop session** on *"How to create an Alexa Skill."*

Codding BootCamp - Athens Center for Entrepreneurship & Innovation (ACEin) *Athens, Greece*

Instructor *Oct 2016*

- **One-hour workshop** on *"What are the neural networks."*

Honors and Awards

Ph.D. in Computer Science, USC *Los Angeles, California*

Funding *2023 – 2027*

Research or Teaching Assistantship.

Ph.D. in Computer Science, USC *Los Angeles, California*

Scholarship *2024*

$5,000 from Gerondelis Foundation.

MSc in Information Systems, AUEB *Athens, Greece*

Scholarship *2019*

50% paid tuition for the top student admitted in the cohort.

Central Hackathon *Lamia, Greece*

1st place winner *2018*

It was a competition for creating pilot applications for Smart Cities or Public Administrators. It involved 14 teams with 51 developers. In two days, my colleagues and I developed Logit, an app for tracking and managing urban infrastructure issues, such as water and energy development. It also provided public access to data, to inform citizens about city issues.

Start-Up/Scale-Up Greece Awards by Philip Morris International *Athens, Greece*

Innovative Product/Service *2017*

Doobbear, an audio social network, allowed users to record and share their voices with followers. We were awarded for the innovation of the idea.

Department of Management Science and Technology *Athens, Greece*

Award for Excellent Assignment in Algorithms and Data Structures by Prof. P. Louridas *2016*

In a class comprising 100 students, I, along with four other students, received an award in recognition of our performance on a bonus assignment.

Certifications

2021 **Software Developer Skills with Java**, PeopleCert *Athens, Greece*

Professional Service

Mining Software Repositories (MSR) 2023 *Athens, Greece*

Junior Program Committee (PC) *2023*

I was in charge of reviewing two research papers in the field of Code Cloning.

Panorama of Entrepreneurship and Career *Athens, Greece*

Back End Developer *2016 – 2018*

Along with fellow volunteers, we developed and maintained the backend service for Business Days submissions.

2nd Coding Bootcamp for Students, ACein   *Athens, Greece*

CONTENT AND SUBJECT CREATOR   *2016*

I held the responsibility of theme selection, crafting and presenting an introductory presentation for the bootcamp, outlining the categories, and coordinating the organization of workshops.

Skills

Programming Languages: Java, JavaScript, Typescript, Python, HTML5, CSS3, JSP, jQuery, R, LaTeX.

Frameworks; Libraries: Spring-Boot, Quarkus, Angular, Vue.js, MEAN Stack, RESTful API, Chatbots (BotBuilder), Electron.js, Minio, Hibernate, Maven, NPM, Soot, ANTLR.

Databases: SQL, MySQL, MSSQL, Postgres, OracleDB, MongoDB, Redis.

Other: Node.js, Docker, Git, Alexa Skill, Matlab, WordPress, Firebase, Elastic, Solr, Nginx, Selenium.

Other Skills: Code Review, Debugging, Testing, User Experience/User Interface (UX/UI), Figma.

Languages: *Greek* (Native), *English* (fluent oral and writing), *Spanish* (A1 - Basic words and phrases only).