



José Antonio Zamudio Amaya

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Date of birth: 25/01/2000 **Nationality:** Spanish

ABOUT ME

Doctoral Researcher at CISPA Helmholtz Center for Information Security - Ph.D. Candidate on Systems Security at Universität des Saarlandes

WORK EXPERIENCE

[01/10/2023 – Current]

Systems Security Researcher

CISPA Helmholtz Center for Information Security

City: Saarbrücken | **Country:** Germany

Pursuing my Ph.D. on Systems Security under the guidance of Andreas Zeller at CISPA, one of the most prestigious research centers in the world.

[01/10/2023 – Current]

University Teaching Assistant

Universität des Saarlandes

City: Saarbrücken | **Country:** Germany

Teaching Assistant in the Security Testing advanced course offered at the Saarland University, defining exercises, projects and exams for 207 students.

[15/02/2023 – 01/10/2023]

Operations Researcher

Pablo de Olavide University

City: Sevilla | **Country:** Spain

My research focused on developing complex metaheuristic algorithms for real-world optimisation problems, with special emphasis on graph-based scenarios such as social networks and 5G bandwidth connections.

[01/01/2022 – 01/10/2023]

Software Product Line Researcher

University of Seville

City: Seville | **Country:** Spain

I conducted research focused on software product lines and highly configurable systems. The goal of my research was to improve the flexibility, adaptability and scalability of software systems by linking theoretical concepts with real applications.

EDUCATION AND TRAINING

[01/10/2023 – Current]

Ph.D in Computer Science

Saarbrücken Graduate School of Computer Science <https://www.graduateschool-computerscience.de/>

City: Saarbrücken | **Country:** Germany | **Field(s) of study:** Information and Communication Technologies | **Level in EQF:** EQF level 8

Pursuing my Ph.D on Systems Security, specializing in topics such as testing, debugging and monitoring real-time systems.

[15/09/2022 – 15/06/2023]

Master in Software Engineering: Cloud, Data and IT Management

University of Seville <https://masteroficial.us.es/mis/>

City: Seville | **Country:** Spain | **Level in EQF:** EQF level 7 | **Type of credits:** ECTS | **Number of credits:** 60 | **Thesis:** Optimising the Generation of Chatbots Using Product Line Techniques

My thesis deals with the reuse of domain-specific information, integrating user intent, natural language processing agents and other features into chatbots. This approach reduces development time and ensures a chatbot tailored to the specific needs of the domain.

[15/09/2018 – 15/06/2022]

Bachelor in Computer Science - Software Engineering (in English)

University of Seville | <https://www.informatica.us.es/>

City: Seville | **Country:** Spain | | **Level in EQF:** EQF level 6 | **Type of credits:** ECTS | **Number of credits:** 240 | **Thesis:** Automatic Website Construction Using Software Product Line Techniques

My thesis focuses on automatically generating, testing and deploying domain-specific websites. Leveraging software product line engineering techniques, domain information is processed and applied to the generation of new websites.

HONOURS AND AWARDS

[19/07/2023]

Master's Thesis Distinction with Honors Awarding institution: University of Seville

[01/07/2022]

Bachelor's Thesis Distinction with Honors Awarding institution: University of Seville

LANGUAGE SKILLS

Mother tongue(s): Spanish

Other language(s):

English

LISTENING C1 READING C1 WRITING C1

SPOKEN PRODUCTION C1 SPOKEN INTERACTION C1

Levels: A1 and A2: Basic user; B1 and B2: Independent user; C1 and C2: Proficient user

DIGITAL SKILLS

My Digital Skills

Programming Languages

Java | JavaScript | Python

Research

Software Product Lines | Heuristics and Optimization | Highly Configurable Systems | LowCode / NoCode | NLP | Security Testing | Fuzzing

Tools and Frameworks

Node.js | React.js | FastAPI | Docker | MongoDB | Git | Django

PUBLICATIONS

[2023]

[Analysis Operations On The Run: Beyond Static Feature Model Analysis in Constraint-based Recommender Systems](#)

In this paper, we propose a set of additional analysis operations that provide insights regarding potential impacts of applying feature models in constraint-based reasoning scenarios where feature models are used to define user preference spaces.

[2023]

[Optimization of Chatbots Generation Using Product Line Techniques](#)

In this paper we present a solution to optimize chatbot generation by reusing domain artifacts and applying product line engineering techniques.

[2022]

[Prototyping for the Automatic Generation, Testing and Deployment of WordPress Websites Using Software Product Lines \(WebSPL\)](#)

In this paper we present an automatic configurator that implements a software product line of WordPress sites using a feature model.