

# ALEJANDRO GARCÍA

SOFTWARE ENGINEER | PhD Student

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## ABOUT ME...

I have always been captivated by the challenge of understanding systems and solving complex problems, a passion that led me to pursue software engineering and explore service-oriented computing. Driven by innovation and efficiency, I love to focus on crafting solutions that address real-world challenges. Collaboration and continuous learning shape how I work. Whether leading teams, presenting research, or mentoring others, I thrive in environments that value adaptability, effective communication, and critical thinking. In the end, I strive to balance creativity, precision, and practicality in both my professional and personal life.

## PROFESSIONAL EXPERIENCE

### GRADUATE RESEARCH ASSISTANT (December 2024 – Present)

University of Seville, Seville, Spain

- Led advancements in pricing-driven development and operation, specializing in the automated validation and optimization of pricing models through Constraint Satisfaction Optimization Problems (CSOP) and expanding the current pricing-driven methodologies to domains such as quantum services and APIs.
- Collaborated on related projects, including two doctoral theses in pricing-aware service composition and pricing-driven capacity analysis, further contributing to innovative approaches in service-oriented computing.
- Supervised several undergraduate and master's theses within the scope of pricing-driven development and operation, mentoring students in research methodology and technical implementation.

### TECHNICAL RESEARCH ASSISTANT (June 2022 – November 2024)

University of Seville, Seville, Spain

- Supported research initiatives in two research areas: automated repair of user interface (UI) tests for Android applications and pricing-driven development and operation of Software as a Service (SaaS).
- Led research and development efforts in pricing-driven development and operation of SaaS, designing methodologies to effectively integrate and manage the impact of pricing models in terms of variability and marketing on SaaS product lifecycles, ultimately enhancing their operational efficiency.
- Authored and presented multiple scientific papers at national and international conferences, showcasing research findings in the area of pricing-driven development and operation of SaaS.

## EDUCATION

### PhD in Software Engineering

(November 2024 - Present)

University of Seville,  
Seville, Spain

### Master's in Software Engineering:

### Cloud, Data and IT Management

(October 2023 - June 2024)

University of Seville,  
Seville, Spain

### Bachelor's in Computer

### Engineering - Software Engineering

(September 2019 – July 2023)

University of Seville,  
Seville, Spain

## TECHNOLOGY SUITE

JavaScript

Java

TypeScript

NodeJS

Python

PyTorch

Spring

Docker

ReactJS

Dart

## **EVENTS PLANNER** (*May 2019 – Present*)

*Excelencia, Seville, Spain*

- Planned, coordinated and executed the logistics and operations for a diverse range of events hosting up to 500 attendees, ensuring seamless execution and adherence to client expectations.
- Lead and managed cross-functional teams of up to 40 members, ensuring precise execution and successful delivery of events.
- Strengthened communication, time management and problem-solving skills by liaising with clients, coordinating with vendors, and resolving on-site challenges under tight deadlines.

## **BEST PUBLISHED PAPERS**

- García-Fernández, A., Parejo, J. A., Caverio, F. J., & Ruiz-Cortés, A. (2024, December). Racing the Market: An Industry Support Analysis for Pricing-Driven DevOps in SaaS. In *International Conference on Service-Oriented Computing* (pp. 260-275).
- García-Fernández, A., Parejo, J. A., & Ruiz-Cortés, A. (2024, May). Pricing4SaaS: Towards a pricing model to drive the operation of SaaS. In *International Conference on Advanced Information Systems Engineering* (pp. 47-54).
- García-Fernández, A., Parejo, J. A., Trinidad, P., & Ruiz-Cortés, A. (2024, June). Towards Pricing4SaaS: A Framework for Pricing-Driven Feature Toggling in SaaS. In *International Conference on Web Engineering* (pp. 389-392).

## **CERTIFICATES**

### **ASSOCIATE CLOUD ENGINEER TRAINING COURSE** (*March 2023 – July 2023*)

*Google, Online*

- The aim of this course is to train students to identify the value of Google Cloud products and services, integrate cloud-based solutions into corporate strategies, and develop proficiency in the use of flexible infrastructure and Google Cloud platforms, with a specific focus on Compute Engine.

### **DATA ANALYST TRAINING COURSE** (*March 2023 – July 2023*)

*Google, Online*

- A course hosted by Google that teaches students how to use Google Cloud data analysis tools, such as BigQuery, to work with real datasets and gain insights from business data.

### **INTRODUCTION TO QUANTUM SOFTWARE DEVELOPMENT** (*November 2023*)

*University of Seville, Seville, Spain*

- The aim of this course is to introduce the foundational principles of quantum software development, providing students with the skills to work with quantum gates, explore current applications, and utilize service-oriented quantum algorithms. It also includes hands-on training with simulation tools and real quantum computers, enabling the development of basic quantum software for existing platforms.

## **LANGUAGES**

### **Spanish**

*Native*

### **English**

*Bilingual Proficiency*

### **French**

*Intermediate Proficiency*

## **AWARDS**

### **Best Student Paper**

*ICSO 2024*

### **Distinguished Paper**

*ICSO 2024*

### **Best Long Paper**

*SISTEDES: JCIS 2024*

### **Best Demo Paper**

*SISTEDES: JCIS 2024*

### **Best Speaker**

*B.Sc. in Computer Engineering  
and Software Engineering*