

# Astley Santos

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 [astleys.github.io](https://astleys.github.io)

## SKILLS

**Programming Languages** Java, Kotlin, Python, JavaScript, Scala, TypeScript, Dart, C/C++, Bash

**Technical Skills** Artificial Intelligence and Machine Learning: PyTorch, Scikit-learn, Pandas, NumPy  
Software Development: CSS, HTML, Node.js, Express.js, Angular, SpringBoot, React.js, Django, SQL, MongoDB, Android, Flutter, Git, Visual Code, Anaconda/Jupyter Notebook, Linux, Docker, Arduino

**Soft Skills** Willingness to learn, Teamwork, Collaborative Work, Project Management, Time Management, Resilience, Creativity

## PROFILE

A Computer Engineer graduate and currently a Master's student in Computer Science that is intrigued about Software Development and all stages of its lifecycle. My ambition lies in leveraging advanced technologies to tackle real-world challenges through Software Development and Artificial Intelligence innovations. With my enthusiasm and my ample knowledge of modern technologies, I am eager to contribute to projects that leverage technology to create meaningful solutions.

## WORK EXPERIENCE

### Mobile Developer, LCSB - University of Luxembourg

04/2023 – 08/2023

- Contributed to the foundational work and initial mobile application features for the Luxembourg Centre for Systems Biomedicine (LCSB) that not only helps Parkinson's patients monitor their condition, but also helps medical researchers perform biomedical analyses
- The application was developed for iOS (iphone and watchOS) with Swift and for Android/Samsung (wearOS)

### Teaching Assistant, University of Luxembourg

09/2022 – 01/23 | 09/2023 – 01/24

- Involved in the creation and automation of tests for grading programming assignments in a Web Development Bachelor's course.
- Strengthened sense of responsibility and liability, time management, communication and software testing

## ACADEMIC EXPERIENCE

### Optimisation for Computer Sciences – Electrical Vehicle Taxi

- Developed a Genetic Algorithm for setting and optimising the planning of electrical vehicles taxis
- Collaborated with doctoral researchers, applied multi-objective optimisation techniques on real research problems and wrote a research paper as report
- Amplified my fondness in this field as its objective is to find optimised solutions for complex and practical problems and enhanced my research skills

### **Connected Autonomous Vehicle – Autonomous Vehicle Simulation**

- Simulated an autonomous vehicle using the Udacity platform with ROS (Robot Operating System) and Docker.
- Developed core autonomous driving functionalities such as control systems for acceleration and braking, path planning and computer vision algorithm for traffic light detection and classification.

### **Full-Stack Web Development – Pharmacy Management**

- Created a website responsible for managing a pharmacy - employees, clients and its products
- Used Spring Boot framework as server-side with a PostgreSQL database allocated in a Heroku cloud with ORM transactions. Used Angular 7 as front-end
- Consolidated the importance of coordination and communication between group members.
- Increased my interest for web development or development in general

### **Software Engineering**

- Applied the analysis processes, requirements definitions and designed UML diagrams to develop a system architecture of a software using Agile Development.
- Reinforced the relevance of Requirements Engineering processes and recognized and assessed some of the existing software development methodologies.

### **Mobile App Development – Shopping List, Parking, Meeting Organiser**

- Built some mobile apps using the Android Studio IDE and the rising Flutter framework and deployed an app on Google Play (not properly functional)
- Grasped the importance and the application of good development practices and project management for better implementation

### **Algorithm and Data Structure – Music Database**

- Implemented a Java program that received and replied to music queries on a music database
- Practiced and comprehended relevant concepts such as Testing, Complexed Data Structure and Complexity Analysis and improved my problem analysis and problem-solving capabilities

## **ADDITIONAL**

### **Amazon Student Programs x University of Luxembourg: All to Tech Mentorship Program 05/2024 – 08/2024**

- Participated in a program designed to enhance technical interview skills. Engaged in multiple mock interviews and collaborative practice sessions focused on key coding interview topics, including algorithmic problem-solving and data structures.

### **Organization of a Workshop – PC Building 2021**

- Pro-actively collaborated with some other students and crafted a workshop for people who were curious and/or had the desire to learn more about PC components and building it from scratch.

## **EDUCATION**



Universidade Lusófona  
de Humanidades e  
Tecnologias  
Portugal  
**2017-2020**

### **Bachelor's in Computer Engineering**

- Main courses: Algorithms and Data Structures, Artificial Intelligence, Data Science, Programming Languages, Computer Architecture, Operating Systems, Databases, Software Engineering, and many others.



University of Luxembourg  
Luxembourg  
**2021-2025**

### **Master's in Information and Computer Sciences**

- Profiles: Artificial Intelligence and Software Engineering

## **PERSONAL**

### **Languages**

Portuguese (Native), English (Proficient), French (Basic), German (Beginner), Italian (Beginner)

### **Hobbies**

Sports, Music, Cinema, Learning