

# Lishun Su

## Information

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Cartaxo, Portugal

Currently working on my thesis titled *Program Synthesis with Dependent Types*, which explores how dependent types can accelerate the synthesis process. As part of this research, I have also studied Genetic Programming and Large Language Models.

## Skills

**Programming Languages:** Python; Java; Kotlin; Go; Haskell; JavaScript

**Platform:** Linux; Android; Cloud Platform

**DataBase:** OracleSQL; MongoDB

## Languages

**Chinese** (native)

**English** (B1)

**Portuguese** (B2)

## Education

### **2024-Present– Master Thesis**

Lasige, Faculty of Sciences of the University of Lisbon, Lisbon, Portugal

Expected: 2025

Thesis title: Program Synthesis with Dependent Types

### **2023-Present– Msc in Informatics Engineering**

Faculty of Sciences of the University of Lisbon, Lisbon, Portugal Expected Graduation: 2025

Current Average: 17/20

Relevant Courses: Compiling Techniques (19), Cloud Computing (19), Game Design and Development (19), Parallel and Concurrent Programming (19), Domain Specific Languages (17)

### **2020-2023– BSc in Informatics Engineering**

Faculty of Sciences of the University of Lisbon, Lisbon, Portugal Average: 16/20

Relevant courses: Algorithms and Data Structures (20), Database and Information Systems (18), Principles of Programming (18), Human Computer Interaction (17), Elements of Linear Algebra (16)

## Projects

### **Plush compiler, grade: 20**

Developed a compiler for the Plush language (a custom language) to LLVM. The compiler was created using Python with the PLY and llvmlite libraries. This involved learning how to build a lexer, parser, type checker, and code generator.

Repository: [https://github.com/Su2001/Plush\\_compiler](https://github.com/Su2001/Plush_compiler)

### **SpotifyChart, grade: 19**

Developed an application that runs on Google Cloud Platform using a microservice architecture and GRPC for internal communication. The application leverages Docker technologies and Kubernetes

for cloud deployment. This involved learning how to use Docker, Kubernetes, GRPC, SQL, and Google Cloud Platform.

Repository: <https://github.com/Su2001/SpotifyCharts>

### **9 Lives, grade: 18**

Developed a platform game using Unity, incorporating enemy AI. This involved learning how to use Unity and implement AI for the game's enemies.

Repository: <https://github.com/Su2001/9Lives>