



# Joy de Carvalho Lucas

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## Objective

As a bachelor's student pursuing a career in software engineering, I am excited to take on a challenging role in a dynamic and innovative organization. With a solid foundation in application design through several personal projects developed using Xcode and programming projects using Java, Python and R at university, I am confident in my ability to deliver high-quality code that can have a positive impact on the company that I work for.

## Education

### Technical University of Berlin

Berlin, Germany

B.Sc. in Computer Science

Oct 2020 - Present

#### • Relevant Courses:

ISDA - Fundamentals of Database Management Systems,  
DWBI - Fundamentals of Warehousing and Data Mining,  
Py. Ing. - Advanced Python Programming,  
R Lab - Statistics using R,  
Stochastic - Fundamentals of Statistics and Probability Distributions,  
BeKo - Fundamentals of Graph Theory and Complexity Theory,  
Artificial Intelligence - Introduction to Reinforcement Learning, Maschine Learning and Neural Nets

### Max-Beckmann School

Frankfurt am Main, Germany

High School

Aug 2016 - June 2019

- **Specialised in:** Physics, English, and Maths
- Took a computer science introductory course

## University Projects

### Water flow data analysis

Berlin, Germany

Technical University of Berlin

Jan 2023 - Feb 2023

- Python Course
- To better understand the water flow field around a circular cylinder with a certain diameter, CFD simulations were carried out. The calculations were performed on an irregular 2D grid that intersects the cylinder so that it appears as a circle within it. The results for a discrete-time point were exported as a CSV file. The characteristics of that data were then analysed and plotted in Python.
- **Technical Skills:** Python, NumPy, Pandas, Matplotlib, JupyterLab.

### Chess Game-Server

Berlin, Germany

Technical University of Berlin

Feb 2022 - March 2022

- Java/ Haskell Course
- Built a game server in Java and Haskell for the Chinese version of chess. The game server managed the game and its connection to the Web-Frontend by checking the validity of chess moves made on the chess board by a user.
- **Technical Skills:** Java, Haskell, JUnit Tests, IntelliJ IDEA, Git.

## Skills

**Programming** Java, Swift, Python (Pandas, NumPy, scikit-learn, etc.), SQL, R(ggplot2), C.

**Miscellaneous** Xcode, IntelliJ, PyCharm, VS Code, Git.

**Soft Skills** Time Management, Teamwork, Problem-solving, Documentation

## Languages

**English** Professional proficiency

**German** Native proficiency

**References are available upon request.**