Leandro Carocca

leandro.carocca@hotmail.com · in Linkedin link



Skills

Swedish (native), Spanish (native), English (fluent) Languages:

Python, Java, C, JavaScript, Matlab, SQL Programming:

Tools: NumPy, SciPy, Sklearn, Matplotlib, JavaFx, Git, Github

About me

A highly motivated and skilled individual with a strong background in engineering physics and applied mathematics. Possessing a Bachelor's degree in Engineering Physics and currently pursuing a Master's degree in Applied Mathematics with a specialization in data science. In addition to my studies at KTH I am also studying Java Development at Nackademin.

Work Experience

Teacher's Assistent in Mathematics

Aug 2021 - now

KTH Royal Institute of technology

At KTH, I assisted in teaching introductory and basic math courses, honing skills in communication, teamwork and student support while deepening my knowledge of linear algebra and single variable calculus. As a teacher's assistant, I delivered lectures, provided one-on-one assistance, graded exams and assignments, and collaborated with instructors to ensure the academic success of first-year engineering students.

Projects

Estimating Parametric Models of Financial Markets

C Link to repository

In my bachelor thesis, I aimed to determine the parameters of a mathematical model for the financial market by utilizing two econometric methods - indirect inference and the two-stage approach. Through this project, I developed skills in compressing and managing large data sets, utilizing various regression techniques, and evaluating machine learning algorithms to predict future market trends.

Quiz Application

C Link to repository

Developed a multiplayer quiz game using JavaFX, client-server architecture and incorporating a database, allowing players to compete against each other in a variety of categories.

Computational Graph Library

C Link to repository

A Python library for graph algorithm implementation, featuring depth-first search (DFS) and breadth-first search (BFS) with efficient performance for large graphs. The library is designed for easy usage and modularity, allowing for easy graph traversals on various types of data.

Education

MSc Degree Programme in Engineering Physics, year 4 — KTH

Aug 2019 - Jun 2024

Currently enrolled in the Master's Degree Programme in Applied and Computational Mathematics specializing in data science. Degree expected in June 2024.

Java Developer, year 1 — Nackademin

Aug 2022 - Jun 2024

Simultaneously expecting to graduate as a Java Developer in June 2024.

BSc, Engineering Physics — KTH