

ALEX JOHN CALDARONE

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RESEARCH EXPERIENCE

University of Warwick

Undergraduate Research Intern

Coventry, United Kingdom (July 2024 - August 2024)

- 8 week research internship funded by the Department of Statistics
- Worked under the supervision of Prof. Fanghui Liu and Prof. Chenlei Leng on the application of dropout in the overparametrized linear regression model

EDUCATION

EPFL

Lausanne, Switzerland (September 2024 - Ongoing)

Master of Science in Statistics

- Expected graduation: July 2026
- Courses: Mathematics of Data, Deep Learning, Reinforcement Learning, Probability Theory, Markov Chains

University of Padua

Padua, Italy (September 2021 - September 2024)

Bachelor in Statistics for Technology and Science

- Final grade: 110/110 cum Laude
- Honours: Awarded merit scholarship “*Mille e una Lode*” by the University of Padua (given to the top 3% of students in every course).
- Core courses: Statistical Methods for Big Data, Generalized Linear Models, Probability, Statistical Inference

PERSONAL PROJECTS AND LEADERSHIP

Mentee at [LeadTheFuture Mentorship](#)

(September 2024 - Ongoing)

Among the few Italian students selected to be mentees for LeadTheFuture, a leading mentorship non-profit organization for students in STEM, with an acceptance rate less than 15%.

Padova Public Transport Network Analysis [[Github](#) | [Report](#)]

(May 2024)

- Group project for the course *Statistical Methods for Big Data* at the University of Padua
- Scraped the local public transport company’s website in order to obtain the necessary data, wrote a data cleaning pipeline. Analyzed the graph data and estimated statistical models to explain its structure
- Produced a report to explain in detail the findings and the structure of the city’s public transport system
- Used Docker to ensure the project is reproducible

[ITADATAhack 2023](#)

(September 2023)

- Represented the University of Padua in Italy’s biggest machine learning competition
- Achieved overall performance of 0.8704/1 on the task of predicting the directory of 50’000 legal documents from the EURLex database.
- Analyzed and preprocessed text documents using tf-idf and transformer models. Built Logistic Regression model and Neural Networks to predict the correct category

WhatsApp Stats [[Github](#) | [Streamlit](#)]

(2022 - 2023)

- Developed a Streamlit app using Python to parse and generate statistics on WhatsApp chats.
- Wrote classes to enable the storing and manipulation of information through a pandas dataframe, which was later plotted using matplotlib
- Used the scikit-learn library to implement a basic Naive Bayes Classifier, which was used to predict the most likely author of a given message

Public Speaking and Presentation Techniques

(June 2022)

- Participated in a series of lectures by Antonio Besana focused on teaching public speaking and presentation techniques by having students create their own presentations.

ABOUT ME

Technical Skills Python (numpy, pandas, scikit-learn, PyTorch), R (tidyverse), MySQL, Git

Languages Italian (Native), English (Native, IELTS Band 8.5)

Interests Swimming, Diving (One Star Certified)