POL FUENTES CAMACHO

Graduate Student at ETH, Switzerland - Permanent US Resident

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EDUCATION

ETH Zurich & EPFL   *Zurich/Lausanne, Switzerland*
Joint Graduate program in CS and Cybersecurity; Master's degree   *September 2024 - (Expeccted) June 2026*
• Coursework: Decentralized Systems Engineering, Information Security & Privacy, Applied Data Analysis, Engineering Ethics

EPFL   *Lausanne, Switzerland*
Computer Science Bachelor's degree; GPA: 4.0   *September 2021 – June 2024*
• Coursework: Analysis, Object Oriented Programming, Machine Learning & AI, Algorithms, Functional Programming, NLP, OS, Databases, Probability and Statistics, Processor Architecture, Stochastic Models for Communications, Linux(Unix) File System

Lycée Français de Barcelone   *Barcelona, Spain*
French Baccaleaureate and Spanish Baccaleaureate; Highest Honors   *September 2017 - June 2021*

EXPERIENCE

Cyber Defence Campus - Armasuisse   *Lausanne, Switzerland*
Network and ML Researcher   *February 2025 –*
• Designed a system to classify packets in real time at speeds of over 100Gbps, building network flows from packets and extracting meaningful features for classification
• Developed a machine learning model to classify network traffic patterns and potential anomalies in real-time, providing insights into large volumes of data.

Finplify   *Geneva, Switzerland*
Cloud and Data Engineer   *June 2024 – September 2024*
• Led the engineering of a robust serverless API by integrating AWS and Google Cloud Functions, balancing scalability, performance, and cost optimization
• Parallelization of core functionalities leading to a 10x speed increase
• Built custom LLM agents leveraging technologies like Autogen to assist users in making financial decisions with tailored data
• Led the team in dataset creation, leveraging insights from literature on fine-tuning and prompt engineering increasing accuracy

MIT J-Clinic   *Cambridge, MA, US*
Data Science Research Intern   *July 2023 – September 2023*
• Conducted comprehensive data mining on vast datasets related to occupational health, revealing intricate patterns and correlations which are often overlooked
• Experimented with multiple configurations within the k-modes algorithm to ensure robustness and accuracy of clustering results

PROJECTS

TravelPros - Award Winning Project at HackUPC   *May 2024*
• Winners of the TravelPerk challenge at HackUPC in Barcelona, the biggest student Hackathon in Europe
• Led Open Source app development in Python and Django with HTML, connecting individuals by flight schedules and interests, with a robust backend using pandas

Deforest Detectives - Finalist Project at TUM.ai Makeathon   *April 2024*
• Developed "OnlyForests", an AI-powered platform leveraging Computer Vision to analyze satellite imagery and identify deforested regions, contributing to global environmental monitoring efforts

TripTracker - Full-stack Android development Project   *Spring 2024*
• Led the development of the mobile app's home and map screens, working on both the front-end and back-end using Kotlin and Jetpack Compose within the Model-View-ViewModel (MVVM) architecture
• Collaborated in a Scrum team, contributing to the continuous development of mobile app features

Javelo - Java Biking Map   *Spring 2022*
• Developed an interactive map application to calculate the fastest biking routes in Switzerland
• Implemented efficient algorithms such as A* to compute optimal paths, improving user experience for cyclists

SKILLS

• **Programming:** Python, Go/Golang, Scala, Kotlin, Java, C/C++, SQL, Docker, AWS, Pandas, TensorFlow, Javascript, VHDL
• **Languages:** English, French, Spanish, Catalan, German (basic)
• **Activities:** Cycling, Guitar, Saxophone, Hiking, Sailing, Photography