Paula Dolores Rescala

+18135050091   paula.d.rescala@gmail.com   LinkedIn   GitHub

EDUCATION

Sept 2021 – Feb 2024	**M.S. in Data Science**, EPFL (Swiss Federal Institute of Technology Lausanne) • GPA: 5.3/6.0 • Alternatively, offered (did not accept) **full-tuition fellowship** to Columbia's Master's program for my essay on how I contribute to diversity and inclusion in Data Science
Aug 2017 – May 2021	**B.A. in Computational and Applied Math**, Rice University • GPA: 3.7/4.0 • Awarded Trustee Distinguished Scholarship (half-tuition **merit scholarship** for full four years) • **Differential Equations Grader**: Produced answer keys, graded weekly problem sets, & provided thorough feedback to students. • **STEM Camp Instructor**: Taught data visualization to 8th grade students coming from under-resourced schools.

PROFESSIONAL EXPERIENCE

Sept 2023 – Jan 2024	**LLM Researcher**, EPFL's Data Science Lab *An Observational Study on LLM Detection of Personalized, Convincing Arguments* • Analyzed state-of-the-art open- and closed-source LLMs' zero-shot effectiveness in discerning persuasive arguments based on demographic cues. • Engineered prompts through empirically evaluating the impact of structure and supplementary data on LLM performance. • Developed performance benchmarks through logistic regression, gradient boosting classifiers, and crowdsourced task validation on Amazon MTurk. • Configured outputs of different LLMs as features to a stacked model better able to predict content persuasiveness than any LLM individually.
Feb 2023 – Aug 2023	**Data Science Intern**, Schindler Group *Indoor Navigation System to Improve Elevator Accessibility for the Visually Impaired* • Collected a dataset of 7920 RSSI measurements from 3 BLE/LoRa beacons in an indoor environment by (1) coding drivers to receive measurements and send them to a Raspberry Pi and (2) developing a reproducible data collection protocol. • Trained neural network models on both my own and an existing dataset using contrastive learning and physics-informed frameworks in Azure ML which achieved results as performant as state-of-the-art. • Designed and implemented a localization strategy of using an extended Kalman Filter to combine IMU position estimates using kinematics and beacon position estimates using the trained model. • Led some and participated in all sprint planning sessions (including task planning, time estimation, and retrospective meetings) as part of Agile SCRUM project management. • Supervised a new student after project completion to test my final ideas for further improvement.
Sept 2022 – Jan 2023	**Data Science Research Intern**, IDIAP Research Institute *A Human-Centered Approach to Understanding Local News Consumption* • Conducted a focus group to identify the needs of the migrant community in Lausanne with regards to media and local news. • Mapped the findings of the focus group to technical results found by analyzing thousands of web-scraped articles using sentiment analysis, information retrieval, topic modeling, and text readability methods.

SKILLS

Technologies:	Python, Git, Tableau, R, SQL, HTML, Spark, Apache (Hive, Kafka), Azure (DevOps, ML), Docker
Libraries:	PyTorch, Tensorflow, NumPy, Pandas, scikit-learn, SciPy, Keras