Davide Placido

PostDoc, Biomedical engineer

About

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daplaci

Personal website

Machine learning

Advanced

Pytorch Keras Scikit-learn Numpy Pandas Google Colab

Programming

Advanced

Python R SQL

Intermediate

Bash LaTeX JavaScript Matlab

Basic

C Rust Assembly

Data management

Advanced

Snakemake PostgresSQL duckDB BigQuery Json Git

Cloud

Intermediate

GCP AWS On-premise

DevOps

Intermediate

Github actions Docker CI/CD

Languages

Italian *(Native speaker)*
English *(Fluent)*
Danish *(PD3)*

Summary

I am a biomedical engineer with a strong interest in data science in healthcare. With a PhD in bioinformatics and biostatistics, I have expertise in developing machine learning models and handling heterogeneous biomedical data. Now, I am eager to leverage my research experience and translate these innovative applications into real-world solutions.

Experience

University of Copenhagen

02/2023 - Present

Postdoctoral researcher

Building on previous work, I am working on the development of DL models for cancer detection using new data modalities.

University of Copenhagen

04/2019 - 01/2023

Research assistant and PhD

NLP Neural networks Entity embeddings ICU Pancreatic cancer Medical images

In this period I conducted research at the Novo Nordisk Center for Protein Research. I have been actively working on various projects encompassing machine learning applications on diverse and unique datasets, including registries, electronic health records and medical images. Notably, I worked on the development of models for early detection of pancreatic cancer using patients' disease history from the Danish registries. I also worked on the development of a decision support tool for detecting clinical deterioration using EHR collected in the general depertments. Other projects involved survival analysis in the ICU and pharmacovigilance using NLP techniques.

Harvard medical school

01/2022 - 07/2022

Visiting researcher

generalizability GCP cloud computing

This experience was part of the change of research environment of my PhD. In this period I visited Chris Sander's lab in Boston, continuing working on pancreatic cancer prediction. In particular, the aim of my visit was testing the generalizability of the model trained on the Danish data on a US dataset. To accomplish this, I had to deploy the ML model on a new cloud, Google cloud platform, and develop a new pipeline for the data preprocessing.

Techincal university of Denmark

09/2018 - 02/2019

Research master student

time-series ICU monitors empirical mode decomposition LSTM

This research project was part of my master thesis. In this period my task was to try improving current mortality risk models in the intensive care unit (ICU). In particular, I worked on time-series collected by monitors in the ICU to enhance an LSTM model using hand-crafted features from high-frequency data.

Education

Polytechnic University of Turin

01/2017 - 01/2019

Turin, Italy

Master degree Biomedical engineering

Polytechnic University of Turin

01/2013 - 01/2017

Turin, Italy

Bachelor degree Biomedical engineering

Publications

A deep learning algorithm to predict risk of pancreatic cancer from disease trajectories

05/2023

Nature Medicine

Placido D, Yuan B, Hjaltelin JX, Zheng C, ..., Brunak S, Sander C

Development of a dynamic prediction model for unplanned ICU admission and mortality in hospitalized patients

06/2023

PLOS digital health

Placido D, Thorsen-Meyer H-C, Kaas-Hansen BS, Reguant R, Brunak S.

Discrete-time survival analysis in the critically ill: a deep learning approach using heterogeneous data

09/2022

Nature digitial medicine

Thorsen-Meyer HC, Placido D, Kaas-Hansen B.S, Nielsen AP, .. Perner A, Brunak S

Language-agnostic pharmacovigilant text mining to elicit side effects from clinical notes and hospital medication records

07/2022

Basic and Clinical Pharmacology and Toxicology

Benjamin Skov Kaas-Hansen, Davide Placido, Cristina Leal Rodríguez, ..., Stig Ejdrup Andersen

Certificates

DevOps, DataOps, MLOps
Duke University *05/2023*

Enterprise Model Deployment
IBM *05/2021*

ML, Visual Recognition and NLP
IBM *05/2021*