DOMENIC CERRI

DATA SCIENTIST

CONTACT

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(443) 872-9768
Chapel Hill, NC
LinkedIn
GitHub

SKILLS

Python (NumPy, Pandas, SciPy, Scikit-learn, Keras, Matplotlib, Seaborn)
Bash
Git
SQL (MySQL, Postgres)
Jupyter Notebook
Statistical Analysis
MATLAB
Project Management
Scientific Communication

EDUCATION

PhD 2016
Behavioral Neuroscience
Neurobiology (minor)
UNC Chapel Hill

BA 2008
Psychology (4.1 GPA)
McDaniel College

CERTIFICATIONS

freeCodeCamp 2022
Machine Learning
Data Analysis with Python
Scientific Computing
Relational Database

PUBLICATIONS

EXPERIENCE

Postdoc / Research Scientist — 2016 – Present

Center for Animal MRI / UNC Chapel Hill

- Develop, adapt, and implement data organization, pre-processing, analysis, and visualization pipelines for preclinical 4D fMRI and multimodal time series data using Python, bash scripting, and specialized software packages
- Collaborate with machine learning experts for fMRI data dimensionality reduction, segmentation, and modeling
- Direct a large-scale, multicenter, multimodal project to identify neurochemical influences on neurovascular coupling
- Supervise and mentor research technicians and graduate students on lab protocols, data analysis, and scientific writing
- Communicate original research findings to internal and external audiences in formal presentations, which have earned multiple awards at international conferences
- Contributed to the conceptualization and writing of two successful multimillion-dollar federal grants

Graduate Research Assistant — 2010 – 2016

Dept. of Psychology & Neuroscience / UNC Chapel Hill

- Conducted research projects from start to finish, leading to a federal grant covering 3 years of salary, 4 poster presentations at international conferences, and a first-author publication
- Developed and taught a full-semester course on behavior theory to UNC Chapel Hill undergraduates, receiving positive reviews
- Created, adapted, and implemented semi-automatic pre-processing and analysis pipelines for animal electrophysiology time series and quantitative behavior data using MATLAB, proprietary scripting languages, and Visual Basic in Excel
- Wrote C++ and proprietary state-notation scripts for low-latency, synchronized control and monitoring of I/O hardware systems

Laboratory Technician — 2009 – 2010

Dept. of Anatomy & Neurobiology / University of MD, Baltimore

- Collected and pre-processed electrophysiology time series and quantitative and qualitative animal behavior and histology data
- Contributed to 5 peer-reviewed publications and 4 conference abstracts and presented a poster at an international conference
- Updated I/O controller hardware and MS-DOS C scripts for low-latency control and monitoring of animal behavior to run on Windows XP using C++ and high-priority threads