

DOMENIC CERRI

DATA SCIENTIST

CONTACT

📍 Chapel Hill, NC

[Portfolio](#) ➔

[LinkedIn](#) ➔

[GitHub](#) ➔

SKILLS

Python (NumPy, Pandas,
SciPy, Scikit-learn, Keras,
Matplotlib, Seaborn)

Statistical Analysis (SAS,
SPSS, Statistica)

SQL (SQLAlchemy, Postgres)

Bash

Git

Jupyter Notebook & Colab

HTML & CSS

MS Office (Excel / VBA, Word,
Powerpoint, Teams)

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
Responsive Web Design

PUBLICATIONS ➔

EXPERIENCE

Research Scientist / Postdoctoral Associate 2016 – Present
Center for Animal MRI / UNC Chapel Hill

- Develop and implement data wrangling, 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
- Write C++ and state-notation scripts to synchronize experimental measurement and manipulation hardware systems, including: animal behavior, fMRI, optogenetics, chemogenetics, DBS, photometry, acute pharmacology, electrophysiology, and electrochemistry
- Direct a large-scale, multicenter 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 more than five peer-reviewed publications and two 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 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