

# 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)

**JavaScript**

**HTML & CSS**

**Bash**

**Git**

**Jupyter Notebook & Colab**

**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  
JavaScript Algorithms  
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 three years of salary, four 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 five peer-reviewed publications, four 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