

# Benjamin Poole

## Computer Scientist



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## Education

B.S. Computer Science  
UNCC | 2018 | GPA:3.9

M.S. Computer Science  
UNCC | 2019 | GPA:4.0

Ph.D. Computer Science  
UNCC | 2023 | GPA:4.0

## Languages

Python  
Java  
Go  
C#  
Bash

## Packages

Tensorflow, Keras, NumPy, Pandas,  
Plot.ly, Dash, Matplotlib, Scikit-learn,  
SciPy

## Software

Git, Docker, Docker Compose, Maven,  
Pulsar, Kafka, Matlab

## Work Experience and Internships

- 2019-now **Graduate Assistant** UNCC Charlotte, NC  
Lead researcher and team leader on machine learning and brain-computer interface project called DeepBCI.
- 2022-2023 **Teacher assistant and co-instructor** UNCC Charlotte, NC  
Assisting in teaching the graduate course Applied Machine Learning. Here I help to create course materials, teach, and hold lab sessions.
- 2021-2022 **Primary Instructor** UNCC Charlotte, NC  
Taught two semesters of the undergraduate course Intro to Machine Learning where I created all my own flipped classroom course material (labs, notes, and projects).
- 2019-2021 **Teacher assistant and co-instructor** UNCC Charlotte, NC  
Assisted in teaching graduate course Applied Machine Learning and undergraduate course Intro to Machine Learning. Here I helped to create course materials, teach, and held lab sessions.
- May-Aug'19 **Summer Data Analytics Intern** Klarrio Apex, NC  
Research intern where I investigated stateful applications in a data streaming environments using AWS, Docker, Python, and Java.
- 2018-2019 **Research Assistant** UNCC Charlotte, NC  
Lead researcher on machine learning and brain-computer interface DeepBCI project.
- May-Aug'18 **Research Experience for Undergrad (REU) Intern** UNCC Charlotte, NC  
Research focused on my DeepBCI project which was funded by the [REU program](#) under the NSF.
- May-Aug'17 **Summer Software Intern** IBM Durham, NC  
Command line software developer where I gained experience in production level software development for IBM's cloud service Openwhisk.

## Research and Projects

- 2018-now **DeepBCI**  
Research surrounding applications of machine learning algorithms for brain-computer interface. Responsible for development of data processing/visualization, machine learning algorithms, scientific experiments, paper/presentation writing, and maintenance of brain-computer interface equipment.  
Survey paper: [Towards Intrinsic Interactive Reinforcement Learning](#)
- May-Aug'19 **Stateful Streaming**  
Developed demos and investigated stateful streaming applications with Pulsar and Kafka.
- May-Aug'17 **Openwhisk CLI Devopment**  
Worked on open source project Openwhisk, a Function-as-a-Service (FaaS) cloud platform. Developed CLI tools and production level test code utilizing OOP via Go and Scala.  
Projects merged: [-last flag](#), [Bash Script](#), [Limit HTTP body](#), [Alphabetize Listings](#)

## Achievements

- 2022 **Invited Speaker**  
Invited to speak at [RLDM 2022](#) Reinforcement Learning With Humans in (And Around) The Loop workshop.
- 2019-now **GAANN Fellowship Funding**  
Awarded Graduate Assistance in Areas of National Need Fellowship funding towards PhD pursuits.
- May'18 **NSF REU Funding**  
Accepted into Research Experiences for Undergraduates program funded by National Science Foundation.

