SciCoder Workshop 2018
Presented by Demitri Muna

March 10-14, 2018
University of Texas at San Antonio
Biosciences Building, Room 3.03.02
Application Deadline: February 16, 2018

Workshop Overview
The workshop is designed to introduce the young researcher to modern programming practices, languages, and tools as specifically applicable to scientific research. These skills will enable the participant to write better code, code faster, and leverage more tools than scientists are typically introduced to or aware of. Emphasis will be placed on the rich variety of open source software available. Attendance will be strictly limited to a small number to provide a personalized and hands-on experience.

Topics
Introduction to Modern Programming Tools
- Code organization
- Using Git and GitHub
- Writing code for reuse
- Code testing
- Creating application programming interfaces (APIs)

Programming a Modern Language
- Introduction to Python
- Object-oriented programming
- Data types and control structures
- Numerical programming in Python

Databases
- Normalizing data
- Reading and designing schemas
- SQL language introduction
- Object-relational mapping

Advanced Topics
- Multiprocessing
- Regular expressions
- Easy code profiling and optimization
- Introduction to R

Organizing Committee
Chris Packham, Chair • Demitri Muna • Lindsay Fuller • Patty Ramirez

Additional information
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