James Shirk Curriculum Vitae

Contact Information

Name: James Shirk

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Other Personal Information

Date of Birth: Upon Request

Citizenship: United States of America

Gender: Male

Marital Status: Upon Request

Education

August 2018 through present, Georgia State University undergraduate physics major, estimated date of completion: December 2021 or May 2022

- GPA of 4.21 (updated January 2020) on a ± grading scale, or 4.0 on a traditional grading scale

August 2014 through May 2018, Druid Hills High School, **completed**

Relevant Employment and Research History

December 2019 through Present, Research assistant at the nuclear physics group at Georgia State University with a focus in phi meson analysis using PHENIX data

- Using Root to analyze data from the PHENIX detector at RHIC
- Testing predictions and physical models using this data

March 2019 through October 2019, Research assistant at the nuclear physics group at Georgia State University with a focus in cosmic ray detectors.

- Assembling detectors from scratch
- Configuring Software for said detectors
- Using programming experience to visualize and analyze the data gained

Skills

Computer related

- Proficient in
  - Python and commonly used scientific packages (Scipy and Numpy)
  - R
  - Linux Terminal Usage
  - Git
- Acceptably Proficient in
  - Web Design (CSS and html)
  - Java
  - C++
- Some Experience with
  - Geant4-based physics simulations
  - Using Root for graphical visualizations and analysis

Other

- Some electronics and integrated circuit experience
- Hands on skills developing physics-based detectors, particularly using scintillation materials and custom electronics
- General computer literacy and troubleshooting experience
- Novice Spanish speaking and reading skills

Conference Presentations

October 17, 2019, Talk at *American Physical Society Division of Nuclear Physics Fall 2019 meeting* in Washington D.C., October 14-17, 2019. “Constructing a Low Cost, Portable Cosmic Ray Muon and Neutron Detector”

October 4, 2019, Talk at *Inaugural International Workshop on Applications of Cosmic Ray Measurements* at Georgia State University, October 4 - 6 2019. “Portable Cosmic Ray Telescope Design and Construction”