RYAN HANNIGAN

Data Analyst

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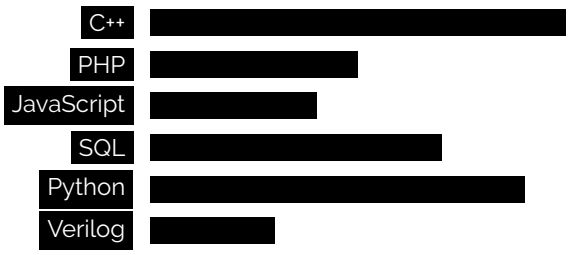
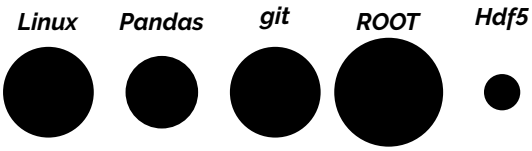
WHO AM I?

Particle physics PhD student at the University of Texas at Austin. Data analyst/software developer for the ALICE experiment at CERN. Current work involves writing C++/python to test detector hardware for 2020 LHC upgrade, but my research involves analyzing proton-lead collision data to extract relevant QCD parameters. Mostly interested in back-end development/algorithmic programming, but capable of generating user-friendly front-ends.





EXPERIENCE

2017 – 4/2019 — **Data Analyst** — **ALICE at CERN**
Use ALICE's version of ROOT (AliROOT) to analyze LHC collision data. Most of analysis is handled on a set of super computers scattered about Europe, then merged to a local file for offline analysis. My analysis involves strange quark 2-D angular correlations.
`C++ / ROOT / Python`

2015 – 2018 — **Software Developer** — **ALICE at CERN**
Contributed to software developed by ALICE for testing various readout equipment for detector upgrade. Mostly command-line based, but there was a QT GUI.
`C++ / QT / Python / Git`

2018 – 2019 part time — **Web Designer** — **UT Austin**
Wrote the skeleton of a web database used to store testing information for readout equipment being built for ALICE ITS upgrade.
`HTML / PHP / JS / mySQL`

EDUCATION

2017 - 2022 — **Doctorate Degree** — **University of Texas at Austin**
Currently in 2nd year of PhD program. Working towards a PhD in Relativistic Heavy Ion Physics/Nuclear Physics. Recipient of Graduate Provost's Excellence Fellowship, valued at over $240,000. Current completed courses include General Relativity, QFT, Physics of Sensors and all core courses.

2012 – 2017 — **Bachelor's Degree** — **University of Houston**
Received BS in both Physics and Mathematics at the University of Houston. Graduated Magna Cum Laude, and was #1 in the Physics Department. Advanced physics courses included Astrophysics, Quantum Field Theory, Devices and Sensors. Advanced math courses included Advanced Linear Algebra, Advanced Partial Differential Equations, Numerical Analysis.

LEADERSHIP

Teaching Assistant 2018-2019, UT
Physics Lecturer 2017, UH
Math Facilitator 2016-2017, UH
Physics Facilitator 2014-2017, UH

HOBBIES

I love playing piano, running, playing games (mainly CS:GO), coding, and I'm a huge fan of math puzzles or riddles. I also enjoy learning new things about Vim, the greatest text editor.

FUN FACTS

I currently play for the UT Varsity CS:GO team and am the only graduate physics student in the entire league. I also have synesthesia, so I hear colors.