Noah E. Wolfe

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Research/Projects

- **Custom-Built Wide Band Radio Telescope** **March 2017 - August 2017**
  https://goo.gl/R1gKfy
  Prototyped a small (0.5 m) radio telescope, using a unique combination of cutting-edge software defined radio equipment and a repurposed satellite TV dish, attempting to detect electromagnetic phenomena (whistlers) in Jupiter's magnetosphere.
- **Meeting Magic** **February 2016 - June 2016**
  https://github.com/thezenth/Meeting-Magic
  Created a Node.js powered app which plans meetings for multiple users based upon "big data," such as local traffic and weather, as well as personal data such as each user's scheduled trips or food preferences. This application was awarded the highest honors in the high school division of the ISS Inaugural Coding Competition.
- **Nitrogen Dioxide Pollution in the Mooresville-Lake Norman Area** **June 2017 - Present**
  https://goo.gl/T5mmzj
  Designing the experimental procedure for, and prototyping and deploying the hardware used to study the extent of nitrogen dioxide pollution in the Mooresville-Lake Norman area, as well as the possibility that any existing pollution has an effect on the incidence of respiratory disease in the area. This has been an intense learning experience, from the electronics and hardware used to interface with nitrogen dioxide sensors, to the people and communication skills I've gained interacting with local governmental agencies.
- **Open Star Cluster Simulation** **June 2015 - Present**
  https://github.com/thezenth/Cluster-Collision
  Designed and built a simulation application, written in Python and using the AMUSE framework. This was a simulation of open star clusters, based upon a Plummer model and Salpeter mass distribution, demonstrating and exploring the link between open cluster collisions and the emergence of Blue Straggler Stars, such as in R136.
- **Optical Simulation for Tandem Organic Photovoltaics** **August 2018 - Present**
  https://tinyurl.com/ya8x3lxy
  Writing an optical simulation with Python to determine the optimum thickness of organic photoreactive layers and recombination layers in a tandem organic photovoltaic device, for use in both the Ade Research Group, and other research groups within the NCSU Organic and Carbon Electronics Lab (ORaCEL). These determined characteristics will then be used to build and test organic photovoltaic devices.

Community Service

- **Tour Application for PARI** **August 2017 - Present**
  http://www.pari.edu
  Currently leading the creation of a smartphone tour app as a volunteer, for the Pisgah Astronomical Research Institute, powered by Node.js and PostgreSQL. This not only taught me new technical skills, from how to use PostgreSQL to Department of Defense security standards (as PARI used to be a DoD facility), but I have also learned how to manage a project and coordinate with multiple people, even at a long distance.
- **Mu Alpha Theta Peer Tutoring** **August 2015 - Present**
  Actively tutored students, both in the classroom, but especially in one-on-one peer tutoring, focusing on the Math 2 / Math 3 / Precalculus levels of mathematics. The majority of my tutees were students who struggled to balance extracurricular priorities with their core mathematics education; every tutee not only eventually learned new mathematics skills, but also new balance and organizational skills as well.
- **Coder Dojo** **October 2017 - June 2018**
  Volunteered at the "CoderDojo," a club at a local middle school designed to introduce young students to programming at all levels. I taught Python to the more advanced students, guiding them in the creation of a text-based adventure game, while also working on introducing other students to the basics of programming with technology like the Raspberry Pi and Scratch.

- **People Enjoying People (PEP) Camp** **August 2017**
  Volunteer at a week-long summer camp for students with various disabilities; each day, I would be paired with a different student, including students with Autism and Cerebral Palsy, playing with them in different ways and encouraging them to play with other students as well.

Leadership and Extracurriculars

- **Science Club** **September 2016 - June 2018**
  President and Co-Founder *September 2016 - June 2018*
  Club whose goal is to foster a community of scientists, thinkers, and learners. This is accomplished in three primary manners; through active, engaged discussion of modern topics and debates in science, competitions, experiments, and other interactive activities, and tutoring to give back to the high school community through science.

Education

- **Somewhere State University** **Somewhere, SM**
  College of Engineering, B.S. Computer Science *1995 – 1999*
  - Lorem ipsum dolor sit amet, consectetuer adipiscing elit.
  - Mirum est notare quam littera gothica, quam nunc putamus parum claram.

Skills

Technical: Python (Advanced), C and C++ (Fundamental), Java (Intermediate), JavaScript (Advanced), LaTeX (Intermediate), PostgreSQL (Intermediate), general Unix proficiency

Languages: English (native), Gujarati (Fundamental), Spanish (Fundamental)