LIZZIE APEL

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Summary

Digital Portfolio: lizzieapel.agnesscott.org

Senior at Agnes Scott College, pursuing a Bachelor of Science in Physics. Graduating in December 2019 and relocating to Portland, Oregon shortly thereafter. Experience working in museum, classroom, laboratory, and automotive shop settings. Organized, motivated, and highly enthusiastic individual with the ability to perform a wide range of practical skills, and further succeed by adapting and expanding on current skill sets and knowledge in order to solve problems. Passionate about making STEM education exciting and accessible for wider audiences by grounding it in real-world applications and hands-on engineering projects.

Education

Agnes Scott College, Decatur, Georgia

Bachelor of Science in Physics, Graduating December 2019

GPA: 3.56

- Recipient of Agnes Scott Founders Scholarship
- Coursework in Mechanical Physics, Electromagnetic Physics, Modern Physics, Thermodynamics, Digital & Analog Electronics, Laboratory Physics, Intro to Computer Programming, Data Analysis in Python, Calculus I, Calculus II, Multivariable Calculus, Women and Leadership in STEM, and Statistics
- Elected Treasurer for Agnes Scott College Generation Action Chapter in 2017

Employment History

World of Speed Motorsports Museum, Wilsonville, Oregon

Summer Education Intern, June 2018 - August 2018

- Performed all duties associated with Summer Instructor position, including supervising students, instructing them in STEM topics, and leading them in hands-on projects.
- Additionally worked behind the scenes to create curriculum for numerous STEM-focused summer camp activities for children.
- Prepared documents for internal use at World of Speed providing instructions and troubleshooting information for various company devices.
- Trained other employees on use of Tinkercad computer-aided design software, MakerBot 3D printer operation, and Scratch programming language.

World of Speed Motorsports Museum, Wilsonville, Oregon

Summer Instructor, June 2019 - August 2019

- Instructed students in physics concepts such as friction, acceleration, and aerodynamics through the practical application lens of automotive racing and motorsports.
- Led students through hands-on activities such as performing routine automotive maintenance checks, building small-scale bridge prototypes, coding video games, constructing circuits, and designing robots so as to foster confidence, critical thinking, teamwork ability, and problem solving skills.
- Supervising students in both classroom and auto shop settings so as to ensure safety at all times, while allowing children to gain basic practical experience using hand tools.
- Worked with students and parents to monitor and accommodate individual student behavior, learning, and medical needs in the classroom. Developed techniques to better facilitate the classroom learning of students with disabilities by working closely with them one-on-one.
- Maintained safety and security of all youth under care.

Skills

General: Fluent in Spanish. Excellent oral and written communication skills. Strong interpersonal skills. Hardworking, driven, detail-oriented. Competent in the use of power and hand tools. Trained in First Aid and CPR.

Physics: Advanced problem-solving skills. Knowledge of both classical and modern physics. Experience applying physics concepts to real-world applications. College-level math competency through multivariable calculus.

Programming: Experience coding in Python, HTML, C/C++ for Arduino, and Scratch or other block-based languages. Extensive use of Jupyter Notebook.

Laboratory: Successful completion of Laboratory Physics and Practical Electronics lab courses at Agnes Scott College. Familiar with lab safety protocols. Experienced in working with fragile equipment. Skilled at data collection and analysis. Experience in maintaining an industry-standard lab notebook.

Digital: Comfortable using Windows systems and programs. Skilled in website design. Familiar with computeraided design software as well as 3D printers. Technological troubleshooting skills. Able to use LaTeX typesetting system.

Electronics: Able to solder and safely construct basic circuits. Familiar with Arduino Uno.

Working with children: Experience supervising and teaching children ages 8–18 in both classroom and summer camp settings, including special needs children.

Automotive: Basic vehicle and engine maintenance skills and use of all associated tools. Trained in Rallycross racing through Primitive Racing. Passionate and knowledgeable about automobiles and motorsports.