Richard Kienhöfer

Rkienhoefer@unr.edu | 831-531-4481 | www.linkedin.com/in/richard-kienhoefer

Education

BS – Physics
University of Nevada, Reno
09/2017 – 05/2021

BS – Engineering Physics
University of Nevada, Reno
05/2018 – 05/2021

Work Experience

Research Lab Assistant
University of Nevada, Reno
October 2019 - Current

- Simulated Cu2N crystal surface, phonon vibrations, and STM images on quantum ESPRESSO, a Density Functional Theory software kit.
- Designed a unique machine to electrochemically etch silver tips to be used in an STM.
- Modeled lab equipment with the CAD software Inventor.
- Conveyed advanced physics concepts to group members through presentations.
- Strong experience in electronic and lab equipment assembly

Computer Repair Technician
Nevada Wolf Shop | Reno, Nevada
August 2018 - May 2019

- Demonstrated advanced troubleshooting skills through diagnosis, that lead to a successful repair.
- Created repair tickets to communicate with coworkers in an effective manner.
- Performed hardware and software support.

Student Intern
Roche Holding AG | Mannheim, Germany
June 2016 - July 2016

- Assisted employees and interns with individual experiments that tested products in different conditions to insure useability and safety.
- Engaged with multiple employees from the design verification department who were all working on different projects. I also attended a meeting for the heads of each department about the future of the company.
- Parsed through a variety of accents in a different language in order to communicate effectively.

Admin
Quantum Universal Education
August 2020 – Current

- Organized an international community of students, professionals, and enthusiasts to create and disseminate quantum computing learning resources.
- Led workshops to assist in learning resource assembly.

Certificates

- Qiskit Global Summer School – Certificate of Quantum Excellence
- The Introduction of Quantum Computing, Saint Petersburg State University
- Deutsches Sprach Diplom, Stufe I und II (German Language Diploma, Level 1 and 2)

Skills

Materials Simulation

- Quantum Espresso | Advanced

CAD Software

- Autodesk Inventor | Advanced

Programming

- Python, C++ | Advanced
- LabVIEW | Intermediate

Quantum Computing and Concepts

- Qiskit | Advanced

Language

- English | Fluent
- German | Fluent

Class Explanations

Thesis

Phys 495

- Title: Phonon Dispersion of Cu_2N (001) Surface

Special Problems

Phys 493

- I worked closely with Dr. Lee to further explore solid state physics concepts and prepare presentations on those concepts. These concepts include: the Brillouin Zone, Phonon dispersion, Debye and Einstein model for Density of States. These concepts were chosen deliberately to pair with my research topic in order to develop a deep understanding of the physics behind my calculations. These topics were then presented to my group members.

Electrical Engineering Circuits I/II and Electronics

EE 220, EE 221, EE 320

- I chose to incorporate electrical engineering classes into my physics course load so that I may expand my knowledge of experimental techniques that I may not otherwise receive from a physics background.

Recommendations

Dr. Joonhee Lee

Assistant Professor at the University of Nevada, Reno

- joonheel@unr.edu