Glenn LeBlanc

530-400-4959 | gleblanc@berkeley.edu | linkedin.com/in/glenn-leblanc | github.com/gl3nnleblanc

Education

UC Berkeley **GPA: 3.8/4.0**
Bachelor of Arts in Physics and Data Science *Aug. 2017 – Dec. 2021*

Experience

Undergraduate Research Assistant Nov. 2020 – Present
UC Berkeley *Berkeley, CA*

- Developed Monte Carlo fitting routine in C++ data analysis framework to analyze ionization quenching in organic scintillators with full uncertainty quantification

Near-term Quantum Systems Research Intern Jun. 2019 – Aug. 2019
KBR, NASA *Moffett Field, CA*

- Developed Python toolkit for parameterized tensor network contraction to classically evaluate MAX-CUT QAOA expectation values
- Participated in weekly journal club discussing recent developments in quantum computing

Teaching

Teaching Assistant Jun. 2020 – Aug. 2020
Berkeley edX *Berkeley, CA*

- Spearheaded reopening of massive open online course in quantum computing with over 40,000 enrolled students
- Updated course elements to adhere to accessibility requirements
- Assisted students in interactive forum and hosted office hours

Computer Science Mentor Jan. 2020 – May 2020
UC Berkeley *Berkeley, CA*

- Taught weekly small group section for data structures course
- Gauged student understanding and directed focus accordingly

Student Instructor Aug. 2019 – Dec. 2019
UC Berkeley *Berkeley, CA*

- Created and taught an introductory course in quantum computing to over 15 undergraduates
- Lectured weekly and prepared and graded assessments

Projects

Quantum Simulation Playground | *Julia, TravisCI, Git* Apr. 2021

- Tensor train decomposition for efficient compression of high-rank tensors with applications in condensed matter physics, machine learning
- Supports time-evolving block decimation for exponentially faster simulation of 1D quantum systems

Quantum Partial Search | *Forest API, Python, pyquil, Git* Apr. 2019

- A variation of Grover's algorithm for unstructured search in quadratic time using a quantum processor

Gitlet | *Java, Git* Dec. 2018

- A mini version-control system inspired by Git
- Supports branching and merging

Technical Skills

Languages: Java, Python, Julia, C/C++, SQL (Postgres), JavaScript, HTML/CSS, Ruby
Libraries: pandas, NumPy, Matplotlib, Rails
Developer Tools: Git, TravisCI, Vim, IntelliJ