

GLENN LEBLANC

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EDUCATION

UC Berkeley

Bachelor of Arts, Double Major in Physics and Data Science

GPA: 3.8/4.0

Aug. 2017 – Dec. 2021

EXPERIENCE

Research Internship - Bay Area Neutron Group

Nov. 2020 – Present

UC Berkeley

Berkeley, CA

- Developed Monte-Carlo fitting routine to solve longstanding (3+ years) problem group had faced concerning biased model fitting using least squares
- Contributed to large-scale C++ data analysis framework to leverage massive datasets for modelling ionization quenching in organic scintillators with full uncertainty quantification

Research Internship - NASA Quantum Artificial Intelligence Laboratory

Jun. 2019 – Aug. 2019

KBR

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

- Developed and facilitated an introductory course in quantum computing to over 15 undergraduates
- Presented weekly lectures 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 | Python, Pyquil, Forest API, Git

Apr. 2019

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

Gitlet | Java, Git

Dec. 2018

- Architected and implemented 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