

# Spencer Churchill

slc.is | github.com/splch  
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## OBJECTIVE

Highly skilled computer scientist with a passion for quantum computing and machine learning. Demonstrated success in implementing innovative solutions, leading cross-functional teams, and contributing to cutting-edge research. Proficient in software development, data analysis, and research, with a commitment to ongoing growth and learning in the field.

## EDUCATION

### UC IRVINE

#### B.S., COMPUTER SCIENCE

June 2022 | Irvine, CA  
Donald Bren School of ICS  
Cum. GPA: 3.76 / 4.0  
Major GPA: 3.8 / 4.0

## LINKS

GitHub:// [splch](#)  
StackOverflow:// [splch](#)  
Devpost:// [splch](#)  
LinkedIn:// [splcher](#)  
Kaggle:// [splcher](#)

## COURSEWORK

Quantum Computation (RA & TA)  
Artificial Intelligence  
Machine Learning  
Virtual Reality  
Database Management

## PROJECTS

### GITHUB

34 repositories, 43 pull requests, 42 followers, 32 stars, and 11 forks

### CHROME STORE

5,300 users, 100 countries, 5 extensions, 4.72 average rating

## SKILLS

### PROGRAMMING

Python • Go • C++ • C  
JavaScript • HTML • CSS

### MACHINE LEARNING

SciKit-Learn • PyTorch  
Pandas • NumPy

### QUANTUM COMPUTING

Qiskit • Cirq • PennyLane  
OpenPulse • Braket • Q#

## EXPERIENCE

### IONQ | SENIOR SOFTWARE ENGINEER

Feb 2023 - Present | College Park, MD

- Integrated and maintained quantum frameworks for IonQ machines
- Built an IonQ Python SDK to improve productivity of application scientists
- Streamlined APIs between users and hardware engineers
- Documented APIs for developer and customer onboarding

### AVA FINANCE | ML ENGINEER

Jun 2022 - Feb 2023 | San Francisco, CA

- Developed an ML pipeline using Google Cloud Functions and SciKit-Learn
- Reduced fraud rates by 20% through ML-based user classification
- Automated loan refinancing using Selenium for reduced friction

### BROOKHAVEN NATIONAL LABORATORY | TEACHING FELLOW

Jun 2021 - Jun 2022 | Brookhaven, NY

- Mentored 15 interns in scientific computing, contributing to Wolfram Alpha enhancements
- Led research on energy potential functions, accelerating lab projects

## RESEARCH

### QISKIT INTERNSHIP | MENTEE

Sep 2020 - Present

Collaborated on **OpenPulse** upgrade for scalable syntax and updated documentation

### UNITARY FUND | PROJECT LEAD

Aug 2020 - Sep 2021

Wrote **Quantum Tales**, an educational resource for diverse groups interested in quantum algorithms

## AWARDS

1<sup>st</sup> / 167 Machine Learning Data Competition — UC Irvine  
1<sup>st</sup> / 440 HackSC 2020 — USC Hackathon  
1<sup>st</sup> / 433 SD Hacks 2019 — UC San Diego Hackathon  
Global IBM Certificate of Quantum Excellence  
National Eagle Scout of Troop 1210

## PUBLICATIONS

- [1] S. Churchill. Rnn composition of thematically diverse video game melodies. *The Computer Games Journal*, 2018.
- [2] S. Churchill. Statistical mozart: Completing the requiem. *Think You?! Journal*, 2019.
- [3] S. Churchill. Quantile-based representative subsampling (qbrs). *ArXiv*, 2023.