

# Spencer Churchill

slc.is | github.com/splch  
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## 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

### STANFORD UNIVERSITY

#### LECTURER

May 2018 | Stanford, CA  
Bay Honors Research Conference

## LINKS

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

## COURSEWORK

### UNDERGRADUATE

Quantum Computation  
(Research Asst. & Teaching Asst.)  
Machine Learning  
Operating Systems  
Artificial Intelligence  
Data Structures & Algorithms  
Database Management  
Virtual Reality

## PROJECTS

### GITHUB

38 repositories, 29 pull requests, 25 followers, 19 stars, and 11 forks

### CHROME STORE

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

## SKILLS

### PROGRAMMING

Officially Certified  
Python • Go • C++ • C  
Javascript • HTML • CSS  
Over 1000 Lines  
Julia • Assembly • Ruby  
Flutter • Dart • R • Bash

## EXPERIENCE

### IBM QUANTUM | QISKIT ADVOCATE

Aug 2020 - Present | New York, NY

- Updated **nine chapters** of the Qiskit Textbook, a primary resource for quantum programming, to better teach difficult concepts
- Published **Qiskit Medium article** to thousands of readers, demonstrating RSA decryption
- Lectured at the University of Toronto, Queensland, McMaster, Tennessee Tech, and Historically Black Colleges and Universities

### BROOKHAVEN NATIONAL LABORATORY | TEACHING FELLOW

Jun 2021 - Present | Brookhaven, NY

- Organized and supported a team of 15 interns in learning scientific computing
- Led research across 5 teams into different energy potential functions for optimization

### MAJOR LEAGUE HACKING | FELLOW

Sep 2021 - Present | Remote

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## RESEARCH

### IBM RESEARCHERS' PROGRAM | MENTEE

Sep 2020 - Present

Collaborated with **Naoki Kanazawa** to upgrade **OpenPulse**, a framework enabling microwave-level control of qubits, to a scalable syntax.

### UNITARY FUND | PROJECT LEAD

Aug 2020 - Sep 2021

Pioneered writing **Quantum Tales**, an educational resource for teenagers interested in quantum algorithms, with support from **Travis Scholten**.

## AWARDS

2021	1 <sup>st</sup> / 167	Machine Learning Data Competition, UC Irvine
2020	1 <sup>st</sup> / 440	HackSC 2020 — USC Hackathon
2019	1 <sup>st</sup> / 433	SD Hacks 2019 — UC San Diego Hackathon
2020	Global	IBM Certificate of Quantum Excellence
2018	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 and L. Sharina. Quantum tales. *arXiv*, 2021.
- [4] H. Kinsley, D. Kukiela, S. Churchill, and T. Halvorson. Neural networks from scratch. *Kickstarter*, 2020.