Aaron Clarke Grisez

Software Engineer – Physicist – Composer
Santa Ana, CA | acgrisez@gmail.com | (559) 360 – 0188
github.com/aarongrisez

EDUCATION

Chapman University, Orange, CA **– GPA 3.87** **Jan 2019**

Bachelor of Science in Physics and Computational Sciences - Departmental Honors

Institute for Quantum Studies Award for Outstanding Contributions in Physics Outreach

Bachelor of Music in Music Composition - Departmental Honors

Conservatory of Music Award for Performance, Service, and Academics (Highest student award)

TECHNICAL SKILLS

- Python
- Julia
- NumPy
- Unity
- Java
- Q#
- PyGame
- Godot
- JavaScript
- AWS EB
- TensorFlow
- Logic Pro X
- C++
- AWS EC2
- CVXOPT
- Max/MSP
- Bash
- AWS RDS
- Ubutnu
- Wwise
- PostgreSQL
- GitHub
- Flask
- Bootstrap

COURSEWORK

- Object-Oriented Design
- Advanced Linear Algebra
- Data Structures and Algorithms
- Machine Learning Research
- Scientific Computing
- Quantum Information Theory

TECHNICAL EXPERIENCE

Founder at *Qhord* **Jul 2017 – present**

Qhord Inc., Orange, California

- Engage non-physicists with a mobile game for iOS/Android using gamification and music to teach quantum theory; we achieve this goal through visualization and sonification of a numerically simulated quantum system
- Prototype in Python with PyGame and Kivy, now using Godot and C++ due to significant performance issues

Visiting Researcher **Jun 2018 – Aug 2018**

Perimeter Institute, Waterloo, Ontario

- Implemented a web game, bellga.me/about, in Python and Flask to demonstrate Bell's Theorem; successful live test with 54 users at a physics event
- Researched information-theoretic measures of quantum states resulting in a forthcoming academic paper

Department Chair Assistant **Aug 2017 – Aug 2018**

Chapman University, Hall-Musco Conservatory of Music, Orange, California

- Using Python, Google Cloud API, and OpenCV, accelerated workflow by over 100 hours while increasing the amount of useful archived data by 75%
- Supported 18 full-time faculty members with varying levels of technology literacy in learning how to use GSuite tools

Recording Engineer **Feb 2015 – Mar 2018**

Chapman University, Orange, California

- Delivered audio and video recording of 4-6 recitals, concerts, and graduate school applications every month
- Edited and mixed recordings using Logic Pro X, Final Cut Pro X, and Adobe Premiere

PUBLIC PRESENTATIONS AND RESEARCH

Reverse Distinguishability as a Resource Theory for Quantum Information **May 2019**

- Preprint draft of an academic paper co-authored with Ryan Morris and Dr. Matthew Leifer

Qhord: Music, Visualization, and Playing Quantum Mechanics **Feb 2018 – Mar 2018**

American Physical Society, March Meeting, Los Angeles, California

Southwest Quantum Information and Technology, Annual Workshop, Santa Fe, New Mexico

- Presented a prototype of Qhord and expanded the project's network with 60 new educator and industry contacts