

(908)-249-1489 • avritzer@usc.edu

OBJECTIVE

USC physics grad student looking for opportunities in quantum information, computational physics and software development

SKILLS

- **Back-end development**
 - Python
 - Java
 - JavaScript
 - Node.js
 - Matlab
 - Mathematica
 - OCAML
- **Front-end development**
 - HTML
 - Java
- **Networking (WebSocket)**
- **Machine Learning (np/SKL)**
- **Numerical Analysis**
- **Bilingual in Portuguese**

EDUCATION

UNIVERSITY OF SOUTHERN CALIFORNIA PH.D. • PHYSICS

2019-

Relevant coursework: Quantum Error Correction, Quantum Information Processing, Mathematical Methods for Physics, Theory of Open Quantum Systems, QM 1+2

CORNELL UNIVERSITY BACHELORS OF SCIENCE • APPLIED AND ENGINEERING PHYSICS • COMPUTER SCIENCE MINOR

2016-2019

Dean's List F2016, S2017, F2017, S2019

Relevant coursework: Quantum Information Processing, Machine Learning, Data Science Numerics, Computational Materials Science, Advanced Experimental Physics, Electronic Circuits, Mathematical Physics, Quantum Mechanics, Data Structures/OOP, Literary Criticism, Functional Programming, Statistical Mechanics, Electromagnetism

EXPERIENCE

SOFTWARE DEVELOPMENT INTERN • IBM

JUNE 2018 – AUGUST 2018

Worked with APIC Datapower Support team. Developed/implemented tools to facilitate deployment of API Connect onto servers in the test environment.

Implemented functional front-end and sync'd with backend for the deployment.

Integrated Bash scripting, Node.js, Docker, Kubernetes, and HTML/EJS.

GRADUATE RESEARCH ASSISTANT • BRUN GROUP

JUNE 2020 – PRESENT

Work with Prof. Brun on Quantum Steganography methods, including analytic results, computational modeling and working with an experimental team (Prof. Habif's group) on implementing the protocols on quantum hardware. See APS March Meeting 2022 talk.

UNDERGRADUATE RESEARCH ASSISTANT • CORNELL AEP DEPT

SEPTEMBER 2017 – PRESENT

Work in computational astrophysics with Prof. Lovelace, focusing on stellar accretion disks and numeric methods such as finite difference, shooting etc.

WRITER • CORNELL DAILY SUN

SEPTEMBER 2016 – JANUARY 2018

Produce articles for the Sun on politics and other topics on a biweekly basis.

Interviewed professors for the newspaper and then produced articles based on the interview.

See link in footer.



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