Bruno Avritzer

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OBJECTIVE

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

SKILLS

- **Programming**
  - 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   **2019-**
PH.D. • PHYSICS

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

UNIVERSITY OF SOUTHERN CALIFORNIA   **2023**
MA • PHYSICS

CORNELL UNIVERSITY   **2016-2019**
BACHELORS OF SCIENCE • APPLIED AND ENGINEERING PHYSICS • COMPUTER SCIENCE MINOR
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

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 website.

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.

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.