Bruno Avritzer

Univ. of Southern California

(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
  - Bash
  - 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: Mechanics, Quantum Information Processing, Mathematical Methods for 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

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.

LEAD PROGRAMMER • CORNELL SCHEDULER FOR ENGINEERS **JUNE 2017 – PRESENT**
Developed Java application to schedule courses for Cornell Engineers based on user specifications using Apache PDFBox library and in-built Java libraries. Developed simple functional front-end GUI and back-end algorithms.

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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bavritzer

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HTTP://SUNSPOTS.CORNELLSUN.COM/AUTHOR/BRUNOAVRITZER