Juan Pablo Castillo

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U.S. Citizen
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EDUCATION

UC BERKELEY

Computer Science
Expected May 2017 | Berkeley, CA

B.A. in Physics
Expected May 2017 | Berkeley, CA
Conc. in Condensed matter physics

Cum. GPA: 3.2 / 4.0

LINKS

https://www.linkedin.com/in/juan-castillo-b04a6630

COURSEWORK

Data Structures
Signals and Processing
Machine Learning
Artificial Intelligence
Quantum Computing
Efficient Algorithms
Quantum Mechanics (I,II)
Statistical Mechanics
Electrodynamics
Operating Systems and Systems Programming
Basic Semiconductors (Circuits building)
Solid State Physics
Linguistics

SKILLS

PROGRAMMING

Proficient:
Java • Shell • JavaScript • Matlab
C++ • Python • Solid Works • LaTeX
C • HTML • CSS • MySQL
• Arduino
Familiar:
iOS • Android • LabView • Tensorflow • Bokeh • MultiSim

RESEARCH

Atomic Force Microscope • Control and Feedback systems
Optics • Laser Stabilization Systems
Pump Systems in vacuums • Error Analysis • Image analysis • Data Analysis

EXPERIENCE

UC BERKELEY CFO'S OFFICE |Data Analyst & Project Assistant

Nov 2016 – Present | Berkeley, CA

- Financial & data analysis of departmental budgets, forecasts.
- Help develop and analyze data visualization of financial budget using Python and JavaScript.
- Develop an interactive budget model using Bokeh while working independently and under minimum supervision.

UC BERKELEY DEPARTMENT OF PHYSICS | Lab Assistant

Sep 2015 – Dec 2016| Berkeley, CA

- Dispense supplies to laboratories, maintain inventory, perform assays, set up and conduct experiments.
- Collect and analyze data, make, prepare reports, keep records, and make independent decisions.
- Assist and direct professor and/or staff who require the services of the lab.

UC BERKELEY (SEGRE INTERNSHIP) | Segre Intern

June 2016 – Aug 2016 | Berkeley, CA

- Employ research techniques while collaborating with faculty and staff to improve physics experiments.
- Design and develop new physics experiments in atomic physics,3D printing, and condensed matter physics.
- Design and build breadboards and circuits for experiments.

RESEARCH

DEEP ACTIVE LEARNING Undergraduate Researcher

December 2016 – May 2017 | Berkeley, CA

Active learning is a supervised learning framework in which rather than building a model that iterates through a labelled dataset, the model is given unlabelled data and chooses on its own which data points would be most valuable if labelled. Obtaining unlabelled data is easier than obtaining labelled data, and a strong active learning model would be more efficient at learning if it were proficient in choosing optimal data points query for labels.

TOPOLOGICAL INSULATORS

Dec 2016 – May 2017 | Lawrence Berkeley National Lab
Research Advisor: Alessandra Lanzara

Our group is interested in using new tools to probe several materials, primarily using ARPES, spin-ARPES, and time-resolved ARPES. Specific areas of interest and research highlights are Ultrafast Dynamics in Cuprate Superconductors, Cuprate Superconductors, Iron-Based Superconductors.

AWARDS

2016	4/50 Teams	LinkedIn Intern Hackathon
2014	3/35 Team	Space Hackathon (Magnitude.io)

SOCIETIES AND ACTIVITIES

2014-Present	Local	Cal Hacks
2015-Present	Local	Machine Learning @Berkeley
2015-Present	Local	UAVs @Berkeley