

## **Ivan Sepulveda**

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### **OBJECTIVE**

Obtain an internship or research position where I can apply and develop my quantitative analysis skills, preferably in a context where I am writing code to analyze significant sets of financial data.

### **EDUCATION**

#### **University of San Francisco (USF), San Francisco, CA**

B.S. in Physics, Minors: Engineering-Physics & Computer Science

Expected May. 2019

### **RELEVANT EXPERIENCE**

#### **Research Assistant – USF Physics Department, San Francisco, CA**

*Professor Milka Nikolic*

May 2017 – Present

- Wrote a Monte-Carlo Python script that models electrons propagating through Argon plasma, tracking their position, energy, and collisions.
- Utilize information gathered to obtain ideal plasma etching parameters.

*Professor Seth Foreman*

May 2016 – December 2016

- Used COMSOL Multiphysics to model simulation of a femtosecond laser releasing pulses of light at a sharp metal alloy tip.
- Experimented with parameters such as heat, alloy composition and pulse length.

### **PERSONAL AND ACADEMIC PROJECTS**

#### **Retail-Fashion Stock Correlation Script**

September 2018

- Developed a methodology to compare percent changes in social media presence with percent changes in the corresponding retailer's stock price
- Employed efficient use of Python API's and libraries to obtain social media and stock price figures dating as far back as necessary

#### **Instant Checkout Python Script**

August 2017

- Wrote a script allowing a user to add an item to their cart based on keywords and preferences.
- Integrated countdown feature that allowed the program to run as soon as merchandise was publically available.

#### **Upper Division Physics Lab – USF**

Fall 2016

- Conducted experiments on numerous topics, including CD data storage, Franck-Hertz experiment, gamma ray spectroscopy, X-ray diffraction, Optical spectrometry, Blackbody radiation, Interferometry and Fourier transform spectroscopy.
- Performed data analysis using Origin including but not limited to fitting data points and Fourier Transforms, compiling results into detailed lab reports

#### **Facial Recognition – Computation Physics I Final Project**

Fall 2016

- Trained an algorithm to execute facial recognition with approximately 70% accuracy using machine learning and computer vision.

### **SKILLS**

- Fluent in Spanish, Beginner Proficiency in French
- Proficient in Python, LaTeX, Java, HTML and CSS

### **AWARDS**

- Shane Battier Take Charge Scholarship Recipient

### **REFERENCES**

- Newell Flemming – [newell@takechargefoundation.org](mailto:newell@takechargefoundation.org)
- Milka Nikolic – [mnikolic@usfca.edu](mailto:mnikolic@usfca.edu)