**Ivan Sepulveda**

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**EDUCATION**

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

B.S. in Physics, Minors: Computer Science & Engineering-Physics Expected August 2019

**RELEVANT EXPERIENCE**

**Rideshare Modeling: Research Assistant – USF School of Management, San Francisco, CA**

*Professors Shivani Shukla & William Riggs* April 2019 – Present

* Build a dynamic model of rideshare prices by day of the week based on Uber data
* Integrate real public transit data into model as a consumer option
* Co-author an academic paper that will draw on this model in order to make recommendations as to how metropolitan areas can decrease traffic congestion while maintaining consumer-driver economic equilibrium

**Computational Physics: Research Assistant – USF Physics Department, San Francisco, CA**

*Professor Milka Nikolic* May 2017 – Present

* Wrote simulation of electrons propagating through Argon plasma in various conditions.
* Utilized results to obtain ideal plasma etching parameters.

*Professor Seth Foreman*  May 2016 – December 2016

* Wrote simulation of a femtosecond laser releasing photon pulses towards sharp metal alloy tip, altering parameters such as temperature, alloy composition and pulse length.

**ACADEMIC & PERSONAL PROJECTS**

**Multithreaded Search Engine** January 2019 – May 2019

* Wrote a Java program that cleans and parses the text from files and websites into an inverted index of word stems and their locations within the corresponding document
* Added support for exact search and partial searching

**When do stocks beat the S&P?** April 2019

* Using various classification methods, determining essential stock performance metrics
* Evaluated securities in a binary manner to reflect if they had surpassed the S&P 500’s performance for the equivalent time period

**German Credit Risk Model** March 2019

* Built a credit risk scorecard (set of probability values) based on the sample data provided

**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.

**Facial Recognition Algorithm** October 2016 – December 2016

* Wrote and trained a facial recognition model with 70% accuracy using PCA and CV

**SKILLS**

* R, Python, Java, SQL, HTML, CSS, & NLP
* Fluent in Spanish. Conversational in French.