Steven Macauda

steven.macauda@gmail.com ❖ (708) 674-5912 ❖ New York, NY ❖ smacauda.github.io

SKILLS

- **Programming:** Python; C++; SQL; Java; JavaScript; R; HTML; CSS
- **Communication/ Visualizations:** Tableau; Matplotlib; Seaborn; Jupyter;
- **Data Science/Engineering:** Scikit-Learn; TensorFlow; PyTorch; Spark; Hadoop; Pandas
- **Cloud Technologies:** AWS; Azure; Google Cloud Platform

EDUCATION

University of California **Sep. 2017 – Jan. 2019**
PhD Student in Physics *Davis, CA*
- **Key Courses:** Quantum Field Theory, Statistical Mechanics, Experimental Methods, Mathematical Methods

University of Illinois Chicago **May, 2016**
BS, Physics *Chicago, IL*
- **Seymour Margulies Scholarship:** awarded to the student who receives the highest grade in upper level electromagnetism course.
- Completed **CMS Data Analysis School (2016)** at the **Fermilab LPC**.

WORK EXPERIENCE

Sharpest Minds **May 2022 – Present**
Data Science Fellow *Remote*
- Collaborating with Head of Data Science at COMMB

University of Illinois at Chicago **Dec. 2014 – Sep. 2017**
Research Assistant *Chicago, IL*
- Performed quality testing on 100s of pixel detector modules for installation in the CMS detector at CERN, leading to a **10% improvement** in tracking parameters.
- Wrote and maintained Python and C++ scripts to monitor data quality.
- Analyzed LHC detector output at the Fermilab LPC and documented anomalous results.
- Utilized data visualization techniques in C++ and Python to present results at weekly meetings.

Multiple Companies **Sep. 2017 – Present**
Tutor *Brooklyn, NY*
- Instruction provided in college level physics, mathematics, and computer science.

PROJECTS

Predict Customer Propensity to Buy an iPhone Based on Past Spending Habits
- Trained kNN classifier to 93% accuracy and logistic regression to 91% accuracy to predict which customers bought iPhones.

Bike Demand Prediction
- Bike sharing data from Washington, DC. Trained random forest to determine demand per hour of bicycles at city bicycle stations with a mean absolute error of 1.26.

Sentiment Analysis of Amazon Reviews
- Used Amazon review data to classify tweets into positive and negative sentiment categories using NLP.

PUBLICATIONS

- "*The DAQ and Control System for the CMS Phase-1 Pixel Detector Upgrade*", W. Adam *et al* (2019) JINST **14** P10017
- "*Precision Measurement of the Structure of the CMS Inner Tracking System Using Nuclear Interactions*" CMS Collaboration (2018) JINST **13** P10034