Ian Snyder

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Skills

Analytical	Big Data Analysis, Statistical Analysis and Machine Learning
Programming	Python, SQL (PostgreSQL, MySQL), AWS, ROOT Data Analysis Framework, Linux, Git, C++, Rucio, SSH, Cloud, Windows Office Suite, HTML, VHDL
Libraries	Pandas, Numpy, Sci-Kit Learn, Matplotlib, Jupyter Notebook, Tensorflow, Selenium, GeoPandas

Work Experience

2019- Present

Data Scientist at Globo Language Solutions

- Forecasted concurrent call volumes to provide staffing recommendations for medical, legal, and general skills for top 10 languages of a possible 300 using AWS tools SageMaker and DeepAR
- Automated invoicing and billing for top tier client using 200k minutes per month with the Pandas and Selenium python libraries to reduce workload on finance department by more than 50 hours per month
- Trained business analyst new hire with no SQL experience on data models in order to be effective across departments
- Built and maintained tools to analyze utilization for several hundred interpreters per day as well as alert managers in case of problems or high call volume, written in python and deployed with Docker containers running on Amazon ECS
- Studied controllable variables such as routing priorities and hold and ring times to maximize interpreter efficiency by reducing down time between calls by up to 25%, increasing revenue and improving client experience
- Modeled terabytes of data from new ETL database from scratch in BI tool Looker to show company-wide metrics such as call volume, hold and connect times, and margins for use in all departments including executive level across organization
- Created more than a dozen visualization dashboards in Looker and Grafana for both internal departments and for clients to gain insights into business metrics

2012- 2018

Researcher and Teaching Assistant at University of Oregon

- Analysis and R&D with group of 25 researchers from the ATLAS detector at the Large Hadron Collider at CERN
- Managed 100 TB of data with Rucio Scientific Data Management and co-developed software in C++ to reduce this to 1TB of data with key features
- Developed a new calibration scheme for an upgrade to the ATLAS trigger system that will have access to data from the entire calorimeter
- Produced and checked 200 background and signal simulation samples ranging from 10MB to 20GB each with distributed computing at up to 2000 nodes using HTCondor
- Fixed problems identified by shifters in the control room as a software on-call experts for the calorimeter

Work Experience (continued)

2009- 2012	Associate Engineer at Frontage Laboratories, Inc.

- Wrote and reviewed batch records in compliance with FDA regulations
- Product development and manufacturing for multiple clients ranging from small-cap to Big Pharma companies
- Material procurement, data recording and compilation, equipment maintenance, and environmental condition monitoring of facility used by team of 10 scientists and technicians

Education

2018	PhD in Physics, **University of Oregon**, Eugene, OR
2012	Postbac in Physics, **West Chester University of Pennsylvania**, West Chester, PA
2006	BE in Chemical Engineering and Mathematics, **Vanderbilt University**, Nashville, TN

Conference Speaking and Scientific Publications

Talks

SUSY 2017	Mumbai, India	Sensitivity of the direct stop pair production analyses in simplified models	audience of 100
USATLAS 2017	Chicago, IL	Search for a scalar partner of the top quark	audience of 100
L1Calo Joint Meeting 2017	Geneva, Switzerland	gFEX Upgrade Status	audience of 100
Analyses reviews 2017	Geneva, Switzerland	Full analysis review	audience of 50
USATLAS 2015	Seattle, WA	Background reduction studies for the stop search	audience of 20

Publications

- *Journal of High Energy Physics*, Volume 12, 2017, "Search for a scalar partner of the top quark in the jets plus missing transverse momentum final state at $\sqrt{s}$=13 TeV with the ATLAS detector"
- *CERN*, 2016, "Search for the Supersymmetric Partner of the Top Quark in the Jets+ETmiss Final State at $\sqrt{s}$ = 13 TeV"
- Co-authored on 150+ publications with minor contributions, 2015-2018

Honors and Awards

2018	University of Oregon Thesis Award
2016	U.S. Department of Energy (DOE) Office of Science Graduate Student Research (SCGSR) Award
2012	Dr. Michael F. Martens Award for Outstanding Achievement in Physics
2006	Cum Laude in Chemical Engineering

Hobbies

Culinary	Cooking, beer brewing
Musical	Classical and electric guitar, Bass guitar
Physical Activity	Hiking including through-hiking the Appalachian Trail, Strongman, Scuba Diving