Zachary Chiodini

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EXPERIENCE

Python Developer   09/2019 – Present

Tredence, Inc.   Bethesda, MD

- Developed Python and SQL code to automatically clean, wrangle and validate messy and convoluted data across databases containing millions of records
- Delivered 2.5-thousand-line user-friendly program that automates a monthly process, reducing processing time from several days to several hours
- Worked independently with stakeholders at the Marriott International Headquarters' Sales Department to identify pain points and requirements, and design workflows
- Managed offshore recourse for program testing and manual processing during development

Data Analytics and Data Science Intern   06/2019 – 09/2019

Tredence Inc.   Alpharetta, GA

- Applied Python, R, SQL, Tableau MS Excel and machine learning algorithms for data manipulation, data analysis, data wrangling and data visualization
- Studied statistics, probability and hypothesis testing
- Created sales forecast for case study by wrangling 220,000 rows of data, correcting for data discrepancies and time series analysis

Research Assistant   06/2015 – 06/2019

New Mexico State University   Las Cruces, NM

- Engineered next-generation ion mobility spectrometers from design to assembly for applications in national security and space exploration
- Applied Lua and SIMION to simulate 3D mathematical models and test hypotheses on ion optics in novel chemical instrument and fragmentation system designs
- Analyzed experimental and synthetic data in Python and MS Excel to validate commercial and prototype instruments, evaluate simulation modeling and present results
- Innovated Draper Laboratory's microAnalyzer to accept large ions, assured quality of Rapiscan Systems' Itemizer and modeled instruments for IARPA and MicroPen Technologies

EDUCATION

MS Physics   12/2019

New Mexico State University   Las Cruces, NM

- Activities   : Graduate Teaching Assistantship
- Coursework: Advanced Computational Physics, Artificial Intelligence, Database Management Systems, Python Programming, R Programming, Systems Engineering

BS Physics and Chemistry, Minor in Biochemistry   05/2017

New Mexico State University   Las Cruces, NM

- Awards   : Marie Heaton Award, Gale A. Harvey Endowed Scholarship
- Activities   : Peer Education Program, Peer Learning Assistant Program, Sigma Pi Sigma National Physics Honors Society, Supplemental Instruction Program, UPN Scholar

CERTIFICATIONS

SnowPro Core Certification   06/2020

- Demonstrated knowledge of Snowflake as a cloud data warehouse