

## Zachary Chiodini

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### EXPERIENCE

- 
- Python Developer** 09/2019 – 08/2020  
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 via decision tree classification and web scraping, 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
- GATEWAY to Data Analytics and Data Science Program** 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 large experimental and synthetic data sets with 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

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- 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

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- SnowPro Core Certification** 06/2020
- Demonstrated knowledge of Snowflake as a cloud data warehouse