# Alexander Jansing

*Data/Software Engineer — Mathematician*

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## Relevant Experience

**Jan 2024 - Present**
**Data Engineer**, *Horizon Next*, Remote
**Experience**: Python, Airflow, AWS, Azure, Docker, Redshift, Snowflake, Athena, Git
○ Create Airflow DAGs to orchestrate data pipelines
○ Maintain Redshift and Snowflake databases
○ Develop Airflow Operators to interact with advertisement data APIs
○ Implement parallel processing of data methods to reduce processing time

**Aug 2021 - Aug 2023**
**Data Engineer II**, *TetraScience*, Remote
**Experience**: Python, Typescript, Docker, Postgres, OpenAPI, AWS, GitHub Actions, Git
○ Perform exploratory research on laboratory equipment. This involved finding technical documents and occasionally contacting vendors for further information
○ Implement schemas and parsers to ingest data from customer laboratory experiments
○ Develop new and improve upon existing API services to improve data discovery of the platform
○ Implement classes to programmatically create, populate, and validate schemas using pydantic
○ Develop tools to accelerate deployment process and enforce coding standards via GitHub Actions

**Feb 2021 - Aug 2021**
**Software Engineer III**, *Assured Information Security*, Rome, NY
**Experience**: Java, Docker, Postgres, Git
○ Develop Docker images and Kubernetes manifests to modernize legacy applications
○ Adapt Windows-based applications to run on Linux-based systems

**Oct 2018 - Feb 2021**
**Software Engineer, Implementation Specialist**, *Booz Allen Hamilton*, Rome, NY
**Experience**: Python, Concourse-CI, Docker, Bash, Postgres, AWS, Terraform, GitHub Actions, Git
○ Use a wide variety of tools to create and maintain CI/CD pipelines in accordance with DoD standards
○ Create pipelines to deliver data to secured environments using AWS Diode
○ Ensure data and code were vetted as to provide the Authority to Operate in secured environments

**Mar 2018 - Sept 2018**
**Software Engineer III**, *Lockheed Martin*, Liverpool, NY
**Experience**: C++, Python, Tensorflow, PyTorch, Docker, Bash, Powershell, Subversion, Matlab, R
○ Implement machine learning models for radio signal classification
○ Develop reusable analytics scripts using Matlab for radio noise reduction

**Jan 2016 - Mar 2018**
**Data Scientist, Junior**, *Booz Allen Hamilton*, Rome, NY
**Experience**: Java, Python, Docker, Bash, Git, Neo4j, OrientdDB, TitanBD, JanusGraph, Accumulo, Nifi, Spark, Hadoop
○ Design a datalake architecture for the Air Force Research Laboratory
○ Develop Apache Nifi workflows and processors for ETL processes
○ Design and implement graph databases for data storage and retrieval

## Military Experience

Apr 2012 -
Apr 2018
**MQ-9 Avionics Journeyman**, *New York State Air National Guard*, Syracuse, NY
- **174$^{th}$** Aircraft Maintenance Squadron:
  - Perform scheduled maintenance and troubleshoot issues with avionics systems on the MQ-9 Reaper

Oct 2009 -
Apr 2012
**F-16 Avionics Journeyman**, *United States Air Force*, Luke AFB, AZ
- **756$^{th}$** Aircraft Maintenance Squadron - 310 Aircraft Maintenance Unit:
  - Perform scheduled maintenance and troubleshoot errors with avionics systems on F-16 fighter jets
  - Responsibilities include maintaining:
    - Flight Controls (FLCS)
    - Identify Friend or Foe (IFF)
    - Radar Warning Receiver (RWR)
    - Fire-control Radar (FCR)
    - Joint Helmet Mounted Cueing System (JHMCS)
    - and others

## Education

Aug. 2015 -
May 2019
**Master of Science in Computer Science**, *SUNY Polytechnic Institute*, Utica, NY, GPA 3.64/4.00
- Dual focus in Mathematics and Software Engineering
- Final Project - Open House Route Planner: A programmatic approach to finding a route to as many open houses on a given day. Inspired by a personal need when searching for a house.

Aug. 2012 -
May 2015
**Bachelor of Science in Applied Mathematics**, *SUNY Oswego*, Oswego, NY

## Technical Skills

Programming
Languages
Python, Java, Bash, LaTeX, Matlab, R, SQL, OCaml, Typescript

Tools
Airflow, Nifi, Tensorflow, Docker, AWS, GitHub Actions, Git, Jira, Confluence, Flutter

## Interests/Hobbies

- Gardening
- Gaming
- Cooking
- Reading
- Hiking in the Adirondacks