

# Prithaj Nath

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## Summary

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Software Engineer with 7+ years of experience building scalable ETL pipelines, deploying machine learning models, and optimizing data infrastructure in cloud environments. Skilled in Python, SQL, Docker, and AWS with a strong academic focus on complex systems and applied machine learning.

## Technologies

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**Programming & Scripting:** Python, SQL, Bash, Ruby, JavaScript

**ML/AI & Data Science:** Pandas, NumPy, scikit-learn, matplotlib, seaborn

**Cloud & DevOps:** Docker, Terraform, Kubernetes, AWS (EC2, Lambda, ELB, EKS, SNS, SQS)

**Data Infrastructure:** PostgreSQL, BigQuery, Snowflake, Redshift

## Education

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**University Of Vermont**

Aug 2024 – May 2026

*M.S. in Computer Science with a specialization in complex systems*

**SUNY Plattsburgh**

Aug 2013 – May 2017

*B.S. in Computer Science*

## Projects

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**Analysis Of Superuser Churn On StackOverflow (<https://bit.ly/41uz0yI>)** Aug 2024 – Dec 2024

- Set up ETL pipelines using Python, SQL, and Bash to transfer 90+ GB of Stack Overflow user data in XML to BigQuery
- Used BigQuery SQL to identify a superuser cohort (~22k users) and generated time-series data by calculating their rolling six-month averages of posts
- Detected churn patterns by fitting exponential decay models on user activity time-series

## Experience

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**Software Engineer**

New York, New York

*Singuli, Inc*

May 2022 – May 2024

- Reduced median client onboarding time by 80% by implementing ETL pipelines to daily ingest sales, inventory, and revenue data using Apache Airflow, Python, and SQL
- Improved forecast quality by 20% by adding data sanity checks for machine learning models (k-means clustering, time-series regression)
- Increased number of prospective clients by 30% by implementing a competitor dashboard analyzing inventory, revenue, and sales data from client competitors using Flask, SQL, PostgreSQL, and Redshift
- Improved API response time by 50% (10s to 4.8s) through PostgreSQL query optimization enabling real-time reports on historical sales and inventory data

**Integration Engineer**

Burlington, VT

*Faraday, Inc*

June 2019 – May 2022

- Implemented ETL pipelines on Kubernetes (EKS) to ingest customer and geospatial data from 50+ sources using Python, Ruby, SQL, and BigQuery
- Built micro-services in Python and Ruby to seed Facebook lookalike audiences with AI-powered cohorts, increasing client ROAS by 50%

- Implemented a micro-service in Python to deploy AI-powered bid modifiers to Google Ads at the zip code level, increasing ad campaign conversion rates by 38%

**Jr Data Scientist**

*IXIS Digital*

*Burlington, VT*

*Aug 2017 – Sept 2019*

- Analyzed e-commerce data from Google Analytics and Adobe Analytics, generating ad-hoc reports using R, SQL, and Python
- Implemented CI/CD pipelines for bare metal servers using Docker and GitLab CI
- Built a Python tool to concurrently scrape 100+ sites and track changes in critical DOM elements