

TECHNICAL EXPERIENCE

Klaviyo

Back-end Software Engineer / Events Pipeline

Jun 2024 — Present
Boston, MA

- Enhanced a distributed events pipeline handling 5B+ events daily (~50K QPS), improving P99 latency by 7% for over one hundred thousand customers
- Directed migration of a critical Kafka cluster to a dedicated team, coordinating documentation, scripts, and training to enable independent ownership, boost stability, and reduce Kafka-related incidents by ~40%
- Optimized a high-throughput pipeline component with asynchronous Python, Redis, and DynamoDB, using batched requests to improve scalability and cut infrastructure costs
- Developed Airflow/EMR tooling to identify and backfill missing downstream events, reducing engineer recovery time, and preventing customer-facing data inconsistencies

Arcavios

Open Source Personal Project

Mar 2023 — Jun 2024
Remote

- Created Scooze, an open-source Python library for Magic: the Gathering developers that enables fast, offline querying of card data through a locally hosted database
- Engineered Pydantic-based data models to ingest and validate 300K+ card records, improving schema resilience and query efficiency for developers
- Spearheaded Scooze from solo prototype to collaborative open-source project, directing two engineers and coordinating early tester feedback to ensure a polished release

Kyruus

Senior Full-stack Software Engineer / API

Mar 2019 — Feb 2023
Boston, MA

- Delivered the v2 API for our next-generation platform, enabling customer integrations with provider data

Senior Back-end Software Engineer / Pipeline Operations

- Created tools to automate the customer onboarding process, reducing engineering costs and accelerating delivery time
- Architected and implemented a Jenkins Pipeline-based system to replace a head-of-line blocking Jenkins job workflow, improving pipeline reliability, concurrency, and retryability
- Reduced load on internal and external APIs by 50% by eliminating redundant data retrieval steps in the pipeline process

Back-end Software Engineer / Customer Onboarding

- Worked closely with new customers to onboard their providers onto our pipeline
- Standardized customer data, reducing nightly pipeline failures by ~20%

PrimePay

Back-end Software Engineer / Tax Filing

Jan 2018 — Mar 2019
West Chester, PA

- Refactored a legacy tax filing engine to manage and file payroll taxes for 22K+ clients
- Designed data visualization and data conversion tools for state and federal tax forms and files (PDF, TXT, XML)

SKILLS

Languages	Python, SQL, NoSQL, JavaScript, Bash, C#
Frameworks & Libraries	Pydantic, FastAPI, Django, Leaflet, LINQ
Platforms	AWS (EC2, RDS, EMR), PostgreSQL, MySQL, MongoDB
Tools	Git, JIRA, Kafka, Redis, Docker, Kubernetes, Terraform, Airflow, Jenkins, \LaTeX
Concepts & Practices	REST API, RPC, Event-Driven Architecture, Object-Oriented Design, Test-Driven Development

PROJECTS

Streamlabs Chatbot	Built a plugin to support automatic handling of picture-in-picture replays during livestreams	Spring 2022
G-Player Visualization Tool	Research Assistant for Dr. Alessandro Canossa	2015 — 2016
Cell Phone Intervention Trial for You (CITY)	Research Assistant for Dr. Stephen Intille	Summer 2013

EDUCATION

Bachelor of Science in Computer Science, Northeastern University

ACTIVITIES AND INTERESTS