Tal Zaken

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PROFESSIONAL EXPERIENCE

Pearl Health

Software Engineer II - Full Stack

June 2023 - Present
- Leads technical requirements specification and development efforts for new product features, including dependency planning, code development and reviews, user acceptance testing, deployment/release, and risk mitigation.
- Tests and optimizes existing features, including application code and underlying systems for improved performance and scalability for a product user base growing 3x year over year, with 10x year over year data volume increases.
- Manages infrastructure for features and systems owned by our team, including performance monitoring and alerting, automated resource setup/teardown, and basic security.

Software Engineer I - Full Stack

April 2022 - June 2023
- Added support for asynchronous operations to a Python/Django application, using the Celery framework.
- Scaled an existing cloud-based platform for value-based care risk management using AWS products and Terraform.
- Collaborated with senior engineers to design and implement a real-time patient risk alerting system using Python/Django.
- Implemented backend APIs in Django, and developed frontend web interfaces to consume them using React and Next.js.

NYC Dept. of Sanitation, Bureau of Recycling & Sustainability

Senior Project Manager and Bureau Data Lead

December 2019 - January 2022
- Wrote internal software to improve collaboration on inter-agency projects, including customer service solutions that shortened response times by 50% for 2000+ complaints per day for emergency food deliveries.
- Proposed, designed, and launched NYC's Smart Composting Bin program, from the ground up.
- Responsible for calculating and publishing New York City's annual rates of recycling.
- Managed all performance reporting and analysis for the Bureau of Recycling & Sustainability, including data collection, storage, visualization, and KPI tracking.
- Responsible for creating all maps (flat and interactive) released by the Bureau of Recycling and Sustainability.
- Wrote and utilized a geographic clustering algorithm for GetFoodNYC, used in complex routing scenarios at the scale of 25,000+ stops over 20+ routes with variable demand and capacity.
- Built and maintained automated reporting pipelines for the NYC Mayor's Office and NYC City Council, on emergency food and recycling metrics, and designed mission-critical dashboards.

Recycling Program Manager

October 2015 - December 2019
- Oversaw Zero Waste Program agreements valued at $12,500,000 and covering 60+ workers. Managed budget and reporting databases with MS Access and SQL Server.
- Wrote and tested reporting queries against budget and payments databases, and developed monthly reports.
- Developed content and specifications for web pages and forms to support crowd-sourced, community-based recycling programs.
- Built NYC Sanitation's apartment building composting program, also serving nonprofits, institutions, and city agencies. Grew program enrollment from 2000 to 200,000+ households utilizing data-informed approaches.

EDUCATION

Brandeis University

August 2007 - May 2011
- BA in English Literature, with Honors
- Allen Grossman Prize for Best Undergraduate Thesis

Recurse Center

December 2021 - February 2022
- Participant, Independent Software Engineering Retreat

SKILLS + TOOLS

- **Cloud/Serverless Architecture:** AWS Products and GCP
- **Infrastructure Management:** Terraform and AWS Cloudformation
- **CI/CD:** CircleCI, Github Actions
- **Monitoring + Observability:** DataDog, Sentry
- **Programming Languages:** Fluent in Python and Javascript / Typescript, proficient in SQL; Some Java and C# experience
- **Web Dev Frameworks:** Django, Flask; React, Next.js
- **Version Control:** Git, GitHub, GitLab