Dene Farrell

Enabling data driven decision making through well-architected cloud solutions.

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Defense Digital Service - Data Architect
Washington DC, November 2020 - Present

- Designed, developed and deployed a real-time streaming analytics platform for ingestion of and machine learning on IoT data.
- Established a cloud-based data brokering service allowing for integration of external data producers and data consumers across the DoD.

Latch - Senior Manager, Data Engineering
New York, Sept 2019 – Nov 2020

- Managed a team of five including three data engineers, a data scientist, and a business analyst
- Delivered several cross-company services: Data Centralization and Governance, Data Ecosystem Management with Automated Analytics, Company Operational Notifications, CRM to ERP Integration, PII Anonymization, ML Pipeline Development and Deployment Framework.
- Coordinated central data platform initiatives with diverse stakeholders while constantly adapting to meet the day-to-day data needs at Latch.

Capital One - Principal Data Engineer
New York, May 2017 – Sept 2019

- Lead Card-on-file Detections: Successfully deployed a classification pipeline that identifies for all credit card holders which merchants have stored their credentials on file.
- Developed a general purpose data visualization tool for handling highly inter-related categorical variables at high volumes, high state variability, low documentation and low stability. Leveraged Spark and D3. Implemented on credit card transaction data.
- Re-architected a monolith ML application to microservices using AWS serverless services.
- Implemented a comprehensive customer profile feature engineering pipeline to service a multi-armed bandit call schedule recommendation service with Python, Snowflake, and Kubernetes.

Insight Fellows Program - Data Engineering Fellow
New York, Jan. 2017 – Mar. 2017

- Deployed Fleetingly, a taxi fleet analysis application for scalable sensing of geospatial patterns
- Implemented fleet performance analysis with live streaming and historical pattern visualizations.
- Tech stack: Kafka, Spark Streaming, ElasticSearch, Kibana. [Python + Scala]

Sloan Kettering Institute - Software Engineer

New York, Dec. 2008 – Jan. 2017

- Built image processing applications for understanding early Drosophila embryo development.
- Made advanced computational tools accessible to non-technical users with intuitive interfaces.
- Enhanced image processing capabilities in order to analyze previously unobtainable 4D data.
- Co-authored several publication in premiere journals such as Nature.
- Built applications with Matlab, Python, and Java

Education

2008   **M.S., Systems Science**; State University of New York, Binghamton

2006   **B.S., Bioengineering**; State University of New York, Binghamton

Side Projects

Gifthorse Inc - Founder and Developer

New York, June 2018 – Present

- Developed a fun and easy to use gift recommender service
- Django Web Backend, React Frontend, Scala Data Engineering and ML Backend
- Services implemented: product parsing and updating, basic frontend functionality, basic recommendation functionalities, authentication, CICD Deployments

Skills

Programming Languages	**Python:** 8 Years experience.
	Scala: 3 years experience developing in Scala. Completed Courses from EPFL in Functional Programming and Software Development with Scala.
	JavaScript, Typescript, React: 2 years experience. I use JavaScript and React in my side project, Gifthorse and leveraged typescript most recently at DDS to contribute to web app products.
	SQL: I have built several products that leverage RDS (Postgres), Snowflake, Spark SQL and Teradata. Additionally I have build and integrate with NOSQL systems such as MongoDB, Elasticsearch, and DynamoDB.
	Shell (Bash): e.g. **dots**
	Basic knowledge: **C++**, **Java**, **D3**, **Mathematica**, **Matlab**, **Perl**
Data Engineering	AWS, Sagemaker, Kafka, Spark, EMR, DynamoDB, AWS Lambda, Flask, Django, ElasticSearch, Airflow, Luigi, Ansible, Jenkins, CircleCI, Snowflake, Docker, Kubernetes, System Architecture and System Design, Looker
Machine Learning	Classification, Regression, Data Wrangling, Feature Engineering, Entity Resolution, Artificial Neural Networks, Unsupervised Learning Algorithms, K-Means Clustering, PCA, Data Visualization

Team Man-agement	Roadmap Planning, Jira, Agile, Scrum, Kanban, Stakeholder Communication, Software Team Productivity Enhancements, Architecture Decision Records, Software and Data System Documentation Strategies

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