Derek Gorthy

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PROFESSIONAL EXPERIENCE

Avanade, Seattle, WA
Senior Data Analyst, July 2018-Current

- Managed a team of four software engineers and developed a customer personalization engine for a large retailer, issuing personalized coupons for 70 million customers on a weekly basis. Developed the machine learning and ETL portions of this application using Databricks, Scala, MLflow, and Jenkins.
- Architected an extensible and scalable machine learning platform for a large technology company's marketing unit. Developed several demo applications on the platform using Python, Azure Data Lake, Azure Data Factory, and Power BI.
- Created Power BI dashboards on a variety of projects, visualizing large data sets stored within the Azure ecosystem.
- Actively contributed to the Analytics community by giving presentations on new technologies, organizing community events, and responding frequently to internal technical discussion forums (Yammer).

Comcast, Denver, CO
Big Data Engineering & Technology Intern, May 2017-August 2017

- Created a Java web API to run in a containerized cloud environment. Tested API response against existing benchmarks, developed performance and security criteria, and created a scalable solution for sub-second queries.
- Optimized application VIPs using visitor geolocation, historical load data, and SLA reports.
- Developed several in-production data ingestions from various sources. Combination of Big Data Technologies listed below.

Sandia National Laboratories, Albuquerque, NM
Cyber Engineering Research Laboratory (CERL) Undergraduate Intern, May 2016-August 2016

- Automated the querying process of a geospatial temporal semantic graph for large-scale testing and analysis.
- Created testing suite for the graphing codebase using C++, Python, bash scripts, and CMake.
- Designed a tool to process large quantities of output data and display useful statistics to non-technical customers.

PERSONAL PROJECTS

Cryptosub.io: Big Data Architecture Project (ranked top 3 in class)

- Developed streaming architecture to display prices and relevant tweets using Kafka, Spark, Python, and a Go socket layer.
- Created aggregate count cache to improve historic query response time 500x and significantly reduced server load.

Feature Film Features: Movie Poster Classification Machine Learning Project

- Leveraged convolutional neural network with sparsemax classification to identify movie genres from movie poster.
- Trained network with 40,000 IMDB images on Amazon's elastic GPU platform. Achieved an f-score of 0.41.

IOT Monitor for Weather Conditions (partnered with LGS Innovations)

- Designed and integrated a series of sensors into LGS Innovations' IOT framework using Node.js, MongoDB, and Python.
- Developed a method to model snow layering in real time and send notifications on specified layering conditions.

EDUCATION

University of Colorado at Boulder **May 2018**
College of Engineering and Applied Sciences (Engineering Honors Program): B.S. in Computer Science, interest in Big Data
Leeds School of Business: B.S. in Business Administration with an Emphasis in Finance and a certificate in Quantitative Finance
Cumulative GPA: 3.754

TECHNICAL SKILLS

Languages: Python, Scala, R, Java, C++, C, Node.js, and React
Big Data Technologies: Spark, Kafka, Hadoop, Hive, Pig, Sqoop, Teradata, Azure Data Factory, and Azure Data Lake
Other Technologies: Power BI, Microsoft Excel, Tensorflow, Pandas, NumPy, MongoDB, SQL, JSON, Regex, Git, and Docker
Operating Systems: Windows, Linux, and OS X

HONORS, AWARDS, AND CERTIFICATIONS

- MSCE: Data Management and Analytics
- Databricks Project Partner Champion of the Year - 2019
- Mathematical Contest in Modeling Outstanding Winner (2015, 2018), Meritorious Award (2016, 2017)
- Member of and Recitation Leader for the University of Colorado's Engineering Honors Program (2014, 2015, 2016, 2017)
- Dean's List Fall 2014, Fall 2015, Fall 2016, and Spring 2017