Andrew W. McGuire

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ENGINEER | BUSINESS ANALYST | DATA SCIENTIST

As an ENGINEER, I am passionate about serving others through analytical problem solving, with an intense focus on delivering tangible value to my customers.

As a BUSINESS ANALYST, I seek to understand my customers' true needs, collaboratively defining elegant and effective solutions.

As a DATA SCIENTIST, I apply innovating thinking, advanced mathematical techniques, and cutting edge technologies to discover valuable insights in diverse data sets.

As a LEADER, I facilitate a team oriented, learning culture, where no question is too small, and data driven decision making is encouraged.

KEY AREAS OF EXPERTISE

- Data Management
- Business Intelligence
- Agile Development
- SQL (Oracle / MySQL)
- Data Analytics - Python
- Javascript | ReactJS | NodeJS
- MongoDB
- Data Engineering
- API Development

RELATED EXPERIENCE

Business Analyst   02/2017 – Present

Rolls-Royce – R^2 Data Labs

Having acquired technical, business, and leadership skills from my previous roles, ready to take on a new challenge, I eagerly transitioned to leadership role for a small data services team, responsible for the development and operation of a Business to Business (B2B) data pipeline, managing Enterprise Resource Planning (ERP) data from over 25 nuclear industry customers. Accomplishments include:

- Through extensive interaction with customer stakeholders, identified gaps in existing business processes, captured user personas and stories, and managed product backlogs throughout the product development lifecycle
- Built web applications leveraging the React/Redux framework, RESTful APIs, and NoSQL Document Databases, rapidly delivering actionable insights to the customer
- Applied unsupervised and supervised machine learning methods to generate insights in business data which had been undiscoverable through decades of exploration using conventional methods

Team Lead – Data Services   06/2016 – 02/2017

Rolls-Royce – Nuclear Engineering Services

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- Designed and implemented an automated, PL/SQL based data ingestion pipeline, serving business critical intelligence to a variety of softwares and services
- Defined and developed data quality metrics for obsolescence, inventory, and equipment reliability management software and services
- Systematically identified data quality program challenges and areas for improvement relating to data management controls and ability to assess data quality

Program Manager – Engineering / Equipment Health   04/2015 – 06/2016

Rolls-Royce – Nuclear Engineering Services

Upon completion of a pilot Equipment Health Management (EHM) service for a nuclear industry customer, I had the opportunity to continue developing the EHM service in a Program Management capacity. As Program Manager, I played a key role in the business development and marketing of the new service offering. Typical responsibilities include:

- Developed and maintained business strategy for Equipment Health Management service offerings
- Attended industry condition monitoring conferences as an engineering services vendor representative
- Presented Equipment Health Management techniques and best practices to various prospective customers from the United States, to China.

R&D Engineer – Equipment Health Management   07/2013 – 04/2015

Rolls-Royce – Nuclear Engineering Services

When Rolls-Royce undertook the challenge to bring decades of industry leading predictive analytics capability from Civil Aerospace into the Commercial Nuclear Power Industry, I had the opportunity to serve the team as a lead technical engineer. After only two weeks of one-on-one learning with industry experts, I was set loose with a new tools, and new data to develop and deliver a market ready solution for a nuclear industry customer. Accountabilities include:

- Regularly interacted with customer stakeholders, translating customer business needs into service delivery requirements
- Developed and implemented a business-to-business (B2B) data pipeline, continuously delivering thousands of data points per hour
- Applied analytics to detected and diagnosed abnormal behavior on over 200 unique nuclear power plant assets in real time, leveraging established engineering principles, advanced mathematics, and a proven track record of critical problem solving

EDUCATION:

Grove City College • Grove City, PA
B.S. in Mechanical Engineering • May 2013
Four Year ABET Accredited Mechanical Engineering School
Career GPA: 3.65/4.00   Major GPA: 3.79/4.00

Grove City College is a "most competitive" college which is consistently ranked among the best liberal arts/sciences colleges in the northeast. www.gcc.edu