Actively seeking opportunities in the following areas:

Software Development

Technical Project Management

Machine Learning/AI Development

Roy Ferguson

**Software Developer**

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| **PROFESSIONAL SUMMARY** |

Senior Software Technologist specializing in developing innovative tools/products. Exceptional capability to identify opportunities for the effective application of automated solutions. Stand-out technology advocate/ evangelist with a natural ability to simplify complex technical concepts and effectively communicate them to both technical and non-technical stakeholders. Proficient in Machine Learning programming and Data Science tools and techniques.

**EXPERTISE**

**Business**

* Technical Program Management
* Product Management/Marketing
* SaaS Business Development
* Learning Management Systems
* RFI/RFQ/SOW/Contract Mgt.
* Customer Advocacy/ Consulting

**Technical**

* Python/C++/Jupyter/Keras
* Linux/Windows
* Agile/Scrum/DevOps
* Feasibility/Prototype Development
* UX/Information Modeling
* Machine Learning / Data Analytics

**EXPERIENCE**

**Independent Contractor/Consultant March 2017 – Present**

**ST.LOUIS, MO**

**Recent Projects:**

**Aircrew Vehicle Simulation – Software Development**

Contract to provide Software Development support for Real-Time Aircraft simulation Platform.

Agile/Scrum/Version1 – Interim Secret Security Clearance.

**Machine Learning - Tutorial/Data Visualization**

Built a tutorial on machine learning using financial analysis as the use case. Implemented a re-purposed version of the Tensorflow Playground. The Financial Analysis use case was inspired by Google’s “ML with Financial Data” example. See nnexplainer.com

**Fintech - Financial Modelling**

Developed Neural Network models (Python/Keras) to predict Exchange Traded Product price movements. Project involved Exploratory Data Analysis (EDA) for feature engineering and subsequent model development and evaluation. Successful outcome provided impetus for several company sponsored AI-based initiatives.

**Business/Product Development – HCM**

Business / Product Development for **Human Capital Management** product suite targeted towards SME market. End-to-End project responsibilities included:

* Provided Market Analysis to assess market size, competition, SWOT, and to identify trends/opportunities that drove company strategy.
* Performed End-User Research to define product Requirements/Specification
* Developed product architecture and defined user experience (UIX) objectives
* Created a prototype for proof-of-concept and performed associated usability studies.

**Prototype Development - Process Optimization**

Investigated and developed a robotic process automation solution to optimize workflows in support of the Company’s client engagements. Developed a prototype decision support system that monitored organizational touch-points and by utilizing a combination of predictive analytics and machine learning techniques, the system established base-line attributes of properly functioning projects. Goal was to identify anomalies and make prescriptive recommendations for organizations managing complex processes. Tasks included:

* Business Analysis/User Research
* Data Analysis
* Interaction/Information Design
* Prototype Development (Python/Keras)

**Faculty Advisor** (part-time) **– Data Analytics/Big Data August 2017 – December 2018**

**WASHINGTON UNIVERSITY in ST. LOUIS**

Project participation/oversight for initiatives within the Center for Customer Analytics and Big Data(CCABD). Providing mentoring on experiential learning projects involving analytics, machine learning and big data approaches to investigations commissioned by commercial businesses and non-profit organizations. Unique to this role is the opportunity to apply real-world perspective within an academic setting and thereby positively affecting client outcomes by emphasizing solutions that can be incorporated into the clients’ existing operational processes.

**Software Developer/ Solutions Architect May 1991 – March 2017**

**NEWMETRICS – ST. LOUIS**

Held various technical and business positions over a 25 year career with this operations research/business intelligence SaaS development company, including: Product/Program Manager, Software Development Manager, Business Analyst, Sales Engineer and Customer Advocate/Consultant. P&L responsibility for developing and implementing product roadmap for company’s suite of **Business Process Optimization** software and associated services.

Responsibilities included:

* Program Management of a Software as a Service (SaaS) solution
* Software Development Management coordinating inter-disciplinary teams
* Solutions architect using C++/Keras/ Tensorflow - AWS/GCP - Linux and Mobile OS
* SME development / Computer Based Training/Learning Management Systems
* Sales and Customer Support Process Engineering
* Product Implementation/Deployment Methodology Development
* Technical Documentation, Sales/Marketing Collateral/Technical Journals and Publications
* Contract Management, RFI/RFQ Responses, SOW Preparation

**EDUCATION**

**Master of Science | Computer Science**

**Certification in Artificial Intelligence**

Washington University, St. Louis, MO

**Bachelor of Science | Computer Engineering**

Arizona State University, Tempe, AZ