



Multi-Disciplinary Data Scientist, Showcasing AI/ML Software Engineering and Ops

➤ TECHNICAL SKILLS

Languages: Fluent in Python, C++, C#, C, HTML, Javascript, CSS, SQL; Familiar with R, Java, Xamarin

Tools: Tensorflow/Keras/PyTorch, OpenAI, Windows/Linux OS, MinIO, AWS S3, Visual Studio, VS Code, MongoDB, Microsoft SQL Server, Atlassian (Jira, BitBucket, Bamboo, Confluence), Git, Unity, Anaconda, Visio, Excel, Access, ProEngineer, Solidworks, Matlab, Qt GUI Dev, UI/UX, Web Design (ASP.Net, Django)

Other: Active DoD Top Secret, Enterprise Collab. Engineer Award, CompTIA Security+, IBM Quantum Practitioner

➤ PROFESSIONAL EXPERIENCE

L3HARRIS TECHNOLOGIES

Melbourne, Florida

Senior Data Scientist

Sept 2021 – Present

- **Computer Vision**, Developed and integrated novel computer vision algorithms on RGB and Infrared video data.
- **AI Sensemaking**, Expanded ML Features to Object Tracking, Custody Chain, Behavioral Profile, and Anomaly Detection.
- **Deep Reinforcement Learning (RL)**, Empowered RL Agents for air traffic guidance and mission fulfillment.
- **Machine Learning Ops (MLOps)**, Built data pipelines and software systems for AI/ML Full Stack development.
- **AI on the Edge**, Pruned, quantized, and deployed ML models on various edge devices and embedded hardware.
- **Multi-Modal Data Engineer**, Performed data fusion with video, acoustic, and scalar time-series data.
- **AI Explainability**, Created AI/ML Web Tool for real-time user-friendly ML analysis/exploration of multi-modal data.
- **Quantum ML Spearhead**, Led Quantum ML application analyses across L3Harris Technologies Suite.

NORTHROP GRUMMAN CORPORATION

Melbourne, Florida

Software Lead, DevOps

May 2021 – Sept 2021

- **Dev & Scrum Lead**, Led 4 new developers in learning the source code and full lifecycle of software deliverable.
- **Training Lead**, Authored training artifacts for knowledge transfer of development of software deliverable.
- **Integration & Test Lead**, Fully integrated software deliverable and designing black-box testing environment.

Principal Software Engineer, DevOps

December 2019 – April 2021

- **Full Stack Developer**, Designed and developed a diagnostic health management ASP.NET C# application.
- **C++/CLI Development**, Built wrapper technology to communicate between unmanaged C++ and managed C#.
- **AGILE SW Engineer**, Championed AGILE SW development methodologies.

Supportability Engineer, Product Support

September 2014 – December 2019

- **Systems Engineer**, Authored SW Transition documentation for large scale systems.
- **Software Supportability**, Led SW support collaboration for vehicle and mission systems engineering subsystems.
- **Relational Database Management**, Managed maintenance supportability database utilizing SQL queries.
- **Cognizant Engineer & Tech. Leader**, Chaired for subsystem supportability and customer advocate of maintainability.

➤ EDUCATION

UNIVERSITY OF LOUISVILLE

Louisville, Kentucky

Master of Science, Computer Science (AI/ML Focus) (Cum GPA: 3.90)

May 2017 – July 2020

UNIVERSITY OF CENTRAL FLORIDA

Orlando, Florida

B.S., Aerospace Engineering. B.S., Mechanical Engineering.

August 2010 – August 2014

➤ SW Engineering Recent Projects

- **DeepAvatar**, Generative AI Avatar with LLM, NLP, AV ML, AWS S3, Prompting, and RL Human Feedback (RLHF).
- **DeepSpace**, AI Navigational Space Shuttle Deep RL built with Tensorflow and Unity Game Design engine.
- **COVID-19 DeepGen**, Deep Learning project creating novel vaccine candidate with binding affinity comparisons.
- **Rubik's Cube GA App**, AI application w/ GUI for solving alternating cube sizes through Genetic Algorithms.
- **Travelling Salesman App**, GUI app utilizing algorithms such as Wisdom of Crowds, Genetic Algorithms, DFS, and BFS.
- **Research Trial App**, University clinical trials app built on Xamarin frameworks for Android and IOS deployment.