Jon Harms

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📞 (727) 698-5621

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

➤ TECHNICAL SKILLS

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

Tools: Windows/Linux OS, MinIO, AWS S3, Tensorflow/Keras, PyTorch, Visual Studio, Web Dev., Atlassian (Jira, BitBucket, Bamboo), Git, Unity, PyCharm, VS Code, Anaconda, Visio, Excel, Access, ProEngineer, Solidworks, Matlab, Qt

Other: Active DoD Top Secret, Enterprise Collab. Engineering 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 & Technical Leader**, Chaired for subsystem supportability and customer advocate of maintainability.

SOUTHWEST AIRLINES   **Dallas, Texas**

Flight Operations Engineering Intern   *January 2014 – May 2014*
- **Innovator**, Coded application that allocated safe flight paths for aircraft leaving airports utilizing rough terrain data as input.

➤ 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**, Multi-modal Generative AI Avatar with LLM, Audio-Vision, 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 Algorithm 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 application 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.