Eric Jagodinski

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Lockheed Martin RMS
1700 Tradeport Dr
Orlando, FL 32824

Dear Hiring Manager,

I am a Doctoral Candidate at Florida Atlantic University finishing my studies in applied machine learning and computational fluid dynamics writing to apply for the Machine Learning Engineer Associate role at Lockheed RMS AI. I have always admired Lockheed's mission for advancing technology but after attending a presentation by Dr. Brent Segal and hearing of the excellent research into machine learning I am truly excited for the many innovations being pursued at the company. With my current experience in applied machine learning and my background in ocean systems engineering, I believe I make an excellent candidate for this position.

My undergraduate and graduate courses covered many topics including taking sonar data from AUVs, signal processing from various instrumentation and data analysis on the resulting information. My undergraduate capstone project was designing, building, and programming an autonomous surface vehicle capable of GPS waypoint navigation and station keeping. I was the electrical team lead in charge of instrumentation integration but also programmed and tested our Arduino microcontroller. Within our 8 month time-frame and $1,500 budget, our prototype could station keep to a 1.5 bodylength radius with 95% accuracy.

In the early stages of my PhD research, I used 3D Convolutional Neural Networks (CNNs) to estimate turbulent conditions with under 10% error (Python, Fortran). Now, I am using a combination of CNNs and Long-Short Term Memory for perception and tracking and Deep Reinforcement Learning for autonomous actuation control within turbulent fluid simulations (C++, Fortran) with the goal of drag reduction. My PhD has been a wonderful experience, providing me skills in advanced mathematics and physics, software engineering, machine learning, and data science. I have learned Python, Fortran, and R, employed High Performance Computing, used various ML Libraries (SciKit, TensorFlow, Keras, Smarties), developed strong communication skills through conference presentations and teaching and I am ready to start utilizing these for real world applications.

I earnestly thank you for your time and consideration in this role. My resume and website will provide additional details about my projects and qualifications. I would genuinely enjoy discussing this opportunity with you further. Please do not hesitate to contact me with additional questions.

Sincerely,