Ryan Gallagher

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# Objective

To leverage my extensive experience in mechanical engineering, fluid systems, and advanced modeling and simulation for the position of Fuel Systems Engineer at Anduril Industries. I aim to contribute to the development and optimization of advanced engine systems within a cutting-edge defense technology company.

# Professional Skills

**Mechanical Engineering:**  
- Proficient in designing and optimizing autonomous auxiliary and engine systems.  
- Experienced with CAD software including AutoCAD and SolidWorks.  
- Strong grasp of engineering first principles.  
- Hands-on fabrication and testing of complex fluid systems.

**Programming & Simulation:**  
- Proficient in Python, C, Java; experienced with Python libraries (NumPy, PyTorch, Pandas, Scikit-Learn).  
- Modeling and simulation using PIPE-FLO and MATLAB.  
- Version control with Git and GitHub.

**Analytical & Prototyping:**  
- Development and analysis of digital models to improve system performance.  
- Expertise in developing software for system design and predictive modeling.  
- Conducting performance testing and failure analysis.

# Professional Experience

**Mechanical Engineer - Leidos**  
May 2020 - Present | Philadelphia, PA

* • Designed fully autonomous auxiliary systems for U.S. Navy and DARPA unmanned surface vessels.
* • Created various engine systems to support U.S. Navy vessels in multiple mission scenarios.
* • Developed and optimized digital models for auxiliary systems, leading to improved performance.
* • Provided engineering support for the Naval Surface Warfare Center, contributing to the DDG(X) program.
* • Analyzed LPD 17 class ship data to identify modifications that reduce engine operating time.
* • Developed software tools for ship design, including:
* • - A neural network to predict eductor suction flow rates.
* • - A user-friendly program for various computational tasks.
* • - A reinforcement learning model for equipment arrangement on ships.

**Mechanical Engineering Intern - Monroe Energy, LLC**  
May - August, 2016 - 2019 | Trainer, PA

* • Gained hands-on experience in refining operations and mechanical engineering principles.
* • Assisted in the design and optimization of fluid systems used in refinery processes.

# Education

**Master of Science, Computer Science (Focus: Artificial Intelligence & Machine Learning)**  
Drexel University, Philadelphia, PA  
Graduation Date: Expected Graduation: Spring 2025  
GPA: 3.93

**Bachelor of Science, Mechanical Engineering**  
Thomas Jefferson University, Philadelphia, PA  
Graduation Date: 2018 - 2020  
GPA: 3.39

**Bachelor of Science, Physics**  
West Chester University of Pennsylvania, West Chester, PA  
Graduation Date: 2015 - 2018  
GPA: 3.11  
Minor: Mathematics

# Certifications and Workshops

* • Advanced Python for Data Science, 2021
* • CAD Design and Simulation, 2020

# Projects and Accomplishments

* • Engine System Optimization: Successfully designed auxiliary and engine systems with enhanced operational efficiencies.
* • Neural Network Development: Implemented and trained neural networks to predict system behaviors in partially observable environments.
* • Software Development: Created software applications to aid in engineering calculations, facilitating easier and more accurate designs.

# Professional Affiliations

* • American Society of Mechanical Engineers (ASME)

# References

Available upon request.

# Additional Information

Willing to relocate to Costa Mesa, California.  
U.S. Person status compliant.