Ryan Gallagher

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# Objective

Highly skilled Mechanical Engineer with a robust background in modeling, simulation, and digital design. Seeking a mid-level Structural Engineer position with Leidos, utilizing my extensive experience in engineering support, project analysis, and design proficiency, especially in AutoCAD, to contribute to the National Airspace System Integration Support Contract team.

# Skills

Languages: C, Java, Python
Libraries: NumPy, PyTorch, Pandas, Scikit-Learn
Version Control: Git, GitHub
Modeling & Simulation: PIPE-FLO, MATLAB
Computer-Aided Design: AutoCAD, SolidWorks
Analysis & Optimization: System performance evaluation, feasibility studies

# Professional Experience

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

* • Designed autonomous auxiliary systems for U.S. Navy and DARPA unmanned surface vessels.
* • Developed digital models to optimize and improve performance of engine systems for U.S. Navy vessels.
* • Provided engineering and programmatic support to the Naval Surface Warfare Center, aiding in the development of land-based test sites for the DDG(X) program.
* • Analyzed operational data and implemented modifications to improve engine operation times on LPD 17 class ships.
* • Created software tools to aid in ship design, including training neural networks for predictive analysis and developing a GUI-based program for computation.

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

* • Assisted in the design, analysis, and implementation of mechanical systems.
* • Conducted site surveys, collected project data, and performed feasibility studies.

# Education

**Master of Science, Computer Science**  
Drexel University, Philadelphia, PA  
Graduation Date: Spring 2025  
Cumulative GPA: 3.93

**Bachelor of Science, Mechanical Engineering**  
Thomas Jefferson University, Philadelphia, PA  
Cumulative GPA: 3.39

**Bachelor of Science, Physics**  
West Chester University of Pennsylvania, West Chester, PA  
Cumulative GPA: 3.11  
Minor: Mathematics

# Relevant Projects

• Developed a feed-forward neural network to predict suction flow rates in partially-observable environments for U.S. Navy systems.
• Created a reinforcement learning model aimed at optimizing equipment arrangement on ships considering unique requirements.
• Conducted various engineering studies to validate system modifications aiming to enhance ship performance.

# Certifications and Professional Development

• Advanced proficiency in AutoCAD and SolidWorks.
• Undertaken continuous professional development in AI and machine learning applications in engineering.

# Professional Attributes

• Proven ability to handle multiple projects and deliver high-quality results under strict deadlines.
• Strong analytical skills with a focus on performance improvement and optimization.
• Excellent team collaboration and communication skills, ensuring smooth project execution and client satisfaction.

# References

References available upon request.