

# WILLIAM BARON

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## EDUCATION

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Expected in 12/2025 **Master of Science: AI Engineering - Mechanical Engineering**  
**Carnegie Mellon University** - Pittsburgh, PA  
GPA: 4.0/4.0

05/2022 **Bachelor of Science: Mechanical Engineering**  
**Pennsylvania State University** - University Park, PA

## WORK HISTORY

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06/2022 to Current **Modeling and Simulation Engineer**  
**Raytheon Intelligence And Space** – Boston, MA

- Developed a tool in collaboration with MIT Lincoln Labs capable of numerically simulating the kinematics of HGVs
- Performed analysis for the Missile Defense Agency focused on assessing the feasibility of using Arbitrary Wave Frequency Modulation for particular radar tasks, considering constraints such processing capacity and hardware limitations
- Worked on the development of the environment used to train and test the US Army's TITAN software

## RESEARCH EXPERIENCE

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### **Deep Robot Optimal Perception Lab (Carnegie Mellon University)**

- Working on a project aimed at utilizing 2D diagrammatic sketches as an interaction modality for humans to give demonstrations to robots via Gaussian Splatting and 3D reconstruction
- An additional objective of the project is to utilize those demonstrations to train a preference based reward model, and use it to learn a policy (via gradient based RL methods)

### **Flow Physics and Computational Research Lab at Penn State**

- Worked on a project focused on the application Large Eddy Simulation and Bayesian Optimization to optimize a cooling system commonly used in gas-turbine engines
- Worked as a research assistant on a project aimed at developing a physics informed neural network capable of predicting quantities of interest in a temporally evolving stratified shear layer

## CERTIFICATIONS

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**Department of Defense:** Secret level clearance