

## Andrew J. Peng

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## Education

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### B.S. Mechanical Engineering, 2028

University of Maryland, College Park

**Coursework:** Statics, Material Mechanics, Dynamics, Thermodynamics

GPA: 4.0

## Skills

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**Technical:** Java / Python / Luau / C# / Arduino / Autodesk Fusion / SolidWorks

**Languages:** English / Chinese

## Experiences

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### Freelance Game Developer

Belmont, CA

Game Developer

Dec. 2024 - Present

- Designed and delivered full-stack game systems for 25+ client commissions, building scalable core mechanics and UI in Luau and C# for an audience of 1,000+ players.
- Lead developer of a 5-person development team, securing \$1,000+ in monthly funding to support studio initiatives.

### Terps Racing Formula Electric Vehicle

College Park, MD

Vehicle Dynamics Engineer

Aug. 2025 - Present

- Utilized SolidWorks for the 3D design and FEA of the vehicle dynamics sensor integration subsystem for tire and suspension performance monitoring.
- Worked on front brake sensors, push rod strain gauges, and manufacturing.

### Terps Racing Formula Internal Combustion

College Park, MD

Ergonomics Engineer

Aug. 2024 - May. 2025

- Utilized SolidWorks for 3D design and finite element analysis of the steel clutch actuation lever.
- Secured clutch and fastener components, ensuring quality and compliance with FSAE IC 2024 constraints for the vehicle's integration.

## Projects

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### Computer Vision Autonomous Target Acquisition

Belmont, CA

Developer

Dec. 2025 - Feb. 2025

- Designed a computer vision system using Python and OpenCV, with sub-15ms processing intervals, achieving 0.8+ confidence via normalized template matching.
- Utilized Win32 API to translate visual pixel offset to cursor movement vectors.

### Over-Terrain Vehicle

College Park, MD

Navigation and Propulsion Engineer

Aug. 2024 - Dec. 2024

- Designed the OTV navigation algorithm in Arduino, utilizing HC-SR04 sensors for obstacle avoidance and Wi-Fi server-side processing for 3-degree turning tolerance.