

WINLAB Application Essay

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I would like to join the WINLAB internship program for Summer 2025 because of my interest in computer vision algorithms and their applications to augmented reality. Over the past year, I have studied deep-convolutional computer vision techniques in-depth, as well as their potential applications towards many related fields. Specifically, the field of augmented reality has stood out to me because successful AR systems require 3-dimensional rendering of objects as well as simultaneous localization and mapping of the surrounding environment, while preserving computational efficiency. Because of this, one of my top preferences would be the project *Visual Perception for AR Glasses*, as it involves implementing a high-efficiency augmented reality system with advanced computer vision techniques.

Some of the strengths I would bring to the WINLAB internship program include proficiency in Python and the Linux operating system, as well as an advanced knowledge of modern computer vision algorithms (especially those employing convolutional neural networks.)

By being included in the WINLAB internship program, I hope to achieve a deeper and more thorough understanding of the state of the art in augmented reality. I also wish to be able to design and implement an AR system, perhaps leading to a research paper if circumstances permit.