

Cover Letter

Vikas Thamizharasan

Position: Machine Learning / AI - Engineering & Research Internship

The paramount step in creating Artificial Intelligence is to teach computers to understand our world as intuitively as humans do. This dream is rapidly transforming into reality with the advancements in Computer Vision (CV), Machine Learning (ML), Natural Language Processing (NLP) and Computer Graphics, and in some cases outperforming human capabilities. It is my dream to be an integral part of this change.

My interests lie in the intersection of Computer Vision, Computer Graphics and Deep Learning.

- I wish to tackle problems on the theoretical realm specifically generative models (primarily GANs), unsupervised learning (specifically disentangled representation learning), geometric deep learning, learning shape and texture representation of 3d data, discrete differential geometry
- and in the applied realm specifically building parameterized models for shape estimation, differentiable rendering, neural rendering, image-based modelling and rendering, style transfer, vision as inverse graphics, AI for creative content.

I am passionate about building intelligent machines that can reason and understand the natural world and create products that work, are built on novel techniques (for some people this may be indistinguishable from magic) and aids artists and novice users in their creative endeavors (primarily in the visual domain). I want to develop products that make the world a better place and bring joy to the users.

I believe Apple is the right place for me to pursue my dreams. I am also excited to be part of a collaborative environment where researchers, engineers, designers and artists from various backgrounds all work together on challenging problems and to create the perfect product.

Having seen the opportunities offered by Apple for a summer internship, it would be an honour for me to be able to work with the team. My experience and skill set developed over the years (*detailed in my resume*) makes me confident to take up this challenge.