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1 Introduction

This is the record of my study progress on NTK. The plan is as follows.

- Study the Neural Tangent Library by Google
- Reproduce several works published in 2019 focusing on the basic property of NTK and being familiar with the code
- TBD

2 Library

The following paper contains the development of the [neural-tangents](#) library

- [Neural Tangents: Fast and Easy Infinite Neural Networks in Python](#)
- [Fast Finite Width Neural Tangent Kernel](#)
- [Infinite attention: NNGP and NTK for deep attention networks](#)
- [On the infinite width limit of neural networks with a standard parameterization](#)
- [Fast Neural Kernel Embeddings for General Activations](#)

3 First Results

The following paper contains the basic property of NTK in the early years, which will be used to be familiar with the [neural-tangents](#) library.

- NIPS 2019
 - [Wide Neural Networks of Any Depth Evolve as Linear Models Under Gradient Descent](#)
 - [On Lazy Training in Differentiable Programming](#)
 - [The Convergence Rate of Neural Networks for Learned Functions of Different Frequencies](#)
 - [Limitations of Lazy Training of Two-layers Neural Networks](#)
 - [On the Inductive Bias of Neural Tangent Kernels](#)
- ICML 2020
 - [Neural Kernels Without Tangents](#)
- arXiv
 - [A Fine-Grained Spectral Perspective on Neural Networks](#)

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