Aditya **Vikram**

adityavikram54@gmail.com | (404)397-3655 | adityavk.github.io | linkedin.com/in/adityavk

Education

Georgia Institute of Technology, College of Computing
Graduation: May 2024

Master's in Computer Science, Specialization in Computing Systems
Aug 2022 - Present

- Relevant coursework: Advanced Operating Systems, Machine Learning Theory, Graduate Algorithms, Computer Animation, Applied Cryptography, Dynamic Algebraic Algorithms

Indian Institute of Technology Kanpur
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B.Tech. (Electrical Engineering); Minors in Algorithms and Machine Learning
2014-2018

- Received *Academic Excellence Award*s for outstanding academic performance for academic years *2016-17*, *2015-16* and *2014-15*
- Relevant coursework: Intro to ML, Intro to NLP, Probabilistic Modeling & Inference, Algorithms-II, Randomized Algorithms

Work Experience

Graduate Teaching Assistant
Atlanta, US

Georgia Institute of Technology: CS7641 Machine Learning
Sep 2022 - Present

- Evaluated students' reports and provided valuable feedback on the Machine Learning techniques used in their experiments

Computer Scientist - 1
Bengaluru, India

Adobe Inc.
July 2018 - Aug 2022

- Received *Spot Award*s in FY *2019-20* and *2020-21*, and *Special Contribution Award* in FY *2021-22* for exemplary contributions to critical projects at Adobe
- Prototyped and implemented tools for third-party extensibility in a Creative Cloud Web app to increase developer engagement
- Mentored and helped new teammates to ramp-up on the above extensibility platform
- Implemented a user-facing request-access workflow for enabling collaboration in cloud documents
- Architected a process to modularize components of a UI library, reducing the size of multiple Adobe iOS apps by around *5 MB*
- Improved performance and launch time of dynamic paywalls by 50%, resulting in increased revenue due to greater engagement
- Implemented a batching & caching mechanism for collecting analytics in offline state for Universal Windows Platform (UWP)
- Implemented reconnection mechanism to work around flaky appservice bridge in UWP, eliminating 10% of observed crashes

Research Intern
Bengaluru, India

Adobe Inc.
May 2017 - July 2017

- *"Visualizing and designing a navigable interface for a large-scale image gallery on a 360 canvas"*: Given the problem area of Virtual Reality websites, surveyed existing work, brainstormed and chose the problem statement
- Proposed a novel layout for an image gallery in virtual reality and implemented it for Samsung Gear VR in Unity
- Formed an Image similarity graph from a 150,000 image dataset & implemented a tag-based image search intuitive to VR users

Projects

Online MCMC based Bayesian Inference [Report]
Prof. Piyush Rai

Course Project for "Topics in Probabilistic Modeling and Inference"
Jan'18-Apr'18

- Performed a survey of Online Markov Chain Monte Carlo methods, important for bayesian inference over a large dataset
- Studied and implemented Stochastic Gradient Riemannian Langevin Dynamics (SGRLD), an extension of SGLD which overcomes its limitations in constrained settings

Grammatical Error Correction in Sentences [Report]
Prof. Harish Karnick

Course Project for "Introduction to Natural Language Processing"
Jan'18-Apr'18

- Implemented a LSTM based sequence-to-sequence (*seq2seq*) model using *keras* to correct grammatical errors in sentences, using LSTMs for encoding and decoding
- Trained the *seq2seq* model on NUCLE dataset with sub-sampling and suggested improvements to improve correction accuracy

Brittle ML: Playing Satan
Prof. Purushottam Kar

Course Project for "Introduction to Machine Learning" [Report]
Aug'17-Nov'17

- Studied various models of adversarial attacks on Machine learning models, especially convolutional neural nets
- Successfully implemented a blackbox attack on Inception-v3 in Tensorflow to craft adversarial examples for images

Technical Skills

Languages C++, Python, Typescript, C++/CX, Objective C, Swift, Javascript, Shell, LaTeX

Frameworks/ Tools NodeJS, React, Redux, Cocoapods, TensorFlow, Git