Eashan Adhikarla

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EDUCATION

Lehigh University
*Ph.D, Computer Science | Aug 2020 | GPA - **

- P.C. Rossin College Fellowship Award

Lehigh University
M.S, Computer Science | May 2020 | GPA - 3.6/4.0

- Dean's list 2018
- Awarded Scholarship of $25,065 for 3 semesters

Rajiv Gandhi Proudyogiki Vishwavidyalaya
B.E, Computer Science | June 2017 | GPA - 3.7/4.0

- Outstanding Project Award (Cognizant)
- Best Project Award (CSE Dept.)
- Top 1 percentile in "TESTimony 2016"

RELEVANT COURSES

- Natural Language Processing
- Reinforcement Learning & Hidden Markov
- Data Mining
- Advanced Operating Systems
- Advanced Algorithms
- Network Security
- Statistical Computing with Applications
- Advanced Programing Techniques

SKILLS

- Languages - Python, C, C++, Java, Bash, Scala
- Framework - MySQL, HTML, NoSQL, Javascript.
- Tools & Lbraries - Pytorch, Tensorflow, OpenCV, dlib, Boost-C++, Cmake, scikit-learn, git, Latex.

CO-CURRICULAR

Graduate Teaching Assistantship

- Introduction to Data Science
- Programming & Data Structures
- Breadth of Computing

Deep Learning School, Berkeley Lab (LBNL)

- DL for scientific problems for HPC Systems

Mentoring

- Mentored and taught peers in undergraduate senior year

WORK EXPERIENCE

National Science Foundation (NSF-REU) | May - Aug 2020
Peer Mentor

- Mentoring and closely guiding 15 NSF-REU Interns on their respective site projects. (***CNS-1757787***)

Resilience Research Group for SARS-CoV-2 | May - Aug 2020
Graduate Assistant

- Image Gathering for face-masks in United States and designing a novel face-mask detection algorithm for a data science survey research on SARS-CoV-2. (***NSF Award 1841338***)

Lawrence Berkeley National Lab, NERSC | Jun-Aug 2019
Systems Data Engineer, Research Intern - AT Group - *link*

- Developed scripts to fetch and analyze terabytes of data from the SLURM scheduler.
- Analyzed & estimated real-time queues in the scheduler for optimizing the policies for incoming jobs.
- Developed three real-time policies that potentially improved the allocation procedure. (1.) Draining. (2.) Job Cancellation (3.) Job Pausing.

Persistent Systems Ltd. | July-Sept 2016
Software Engineer, Machine Learning Intern - *link*

- Developed a facial recognition and verification system using Google's FaceNET research as the baseline.
- Added additional OpenCV features on top of it, which can differentiate between 3-D and 2-D images.
- Designed a purely browser-based RSA compliant module to work with FIDO keys.

PROJECTS

Robust Adversarial Filter (Python, PyTorch)

- Currently designing a robust auto-encoder and GAN for detecting adversarial images. Developed a close proximity approximation model which is also known as on manifold adversarial detectors. Enhanced the vanilla auto-encoder to a deep architecture with enforced learning from memory elements.

Sequence Generative Adversarial Nets with Policy Gradient (Python, PyTorch) - *link*

- Seq-GAN is a unique approach which models the data generator as a stochastic policy in reinforcement learning to solve the problem.
- The RL reward signal comes from the GAN discriminator judged on a complete sequence, and is passed back to the intermediate state-action steps using Monte Carlo search.

Facial Recognition and Verification System (Python) - *link*

- Realtime recognition system focused on mobile devices..
- Overcame the challenge of keeping a low false-positive rate by developing a unique approach learning directly from 128-D embedding into a Euclidean space.

POSTER

- Estimating an HPC Facility's Capacity For Accommodating Real-time Workflows - NERSC, LBNL

TALKS

- Deep Learning | Bhilai Institute of Technology, Raipur, India (2019)
- Ransomeware End-to-End | Lehigh University, Bethlehem, US (2018)