contact@neeharperi.com neeharperi.com (732) 325-4663

EDUCATION

B.S. in Computer Engineering, University of Maryland - College Park

Expected May 2021

QUEST Honors Program

Publications

• Deep k-NN Defense against Clean-label Data Poisoning Attacks N Peri*, N Gupta*, WR Huang*, L Fowl, C Zhu, S Feizi, T Goldstein, JP Dickerson ECCVW 2020^{\dagger}

• The Devil is In the Details: Self-Supervised Attention for Vehicle Re-ID P Khorramshahi*, N Peri*, JC Chen, R Chellappa

ECCV 2020

GPA: 3.92

• Towards Real-Time Systems for Vehicle Re-ID, Multi-Camera Tracking, and Anomaly Detection

CVPRW 2020^{\dagger}

N Peri*, P Khorramshahi*, SS Rambhatla*, V Shenoy, S Rawat, JC Chen, R Chellappa

• Attention Driven Vehicle Re-ID and Unsupervised Anomaly Detection for Traffic Understanding P Khorramshahi, **N Peri**, A Kumar, A Shah, R Chellappa

CVPRW 2019^{\dagger}

• A Dual Path Model with Adaptive Attention for Vehicle Re-ID

ICCV $2019^{\dagger\dagger}$

P Khorramshahi, A Kumar, N Peri, SS Rambhatla, JC Chen, R Chellappa

Work Experience

MUKH Technologies, College Park, MD, Research Intern

Aug 2020 - Present

- Leading research on improving facial recognition performance across domain shift with large-scale data
- Building facial recognition pipelines for multi-spectral data streams

Carnegie Mellon University, Pittsburgh, PA, Robotics Institute Research Intern

Apr 2020 - Present

• Leading research on 3D open-world detection and tracking for autonomous driving

University of Maryland, College Park, MD, UMIACS Research Intern

May 2018 - Jun 2020

- Conducted research in traffic analytics for unsupervised anomaly detection and discriminative representation learning for vehicle re-identification
- Led research in defending against clean-label adversarial poisoning attacks

Bank of America, Charlotte, NC, Conversational Commerce Technology Intern

Jun 2019 - Aug 2019

- Developed deep learning pipeline to validate quality of utterance-intent pairs in chatbot conversations using PyTorch, AllenNLP, and NLTK
- Delivered novel insights to improve customer satisfaction from production data and reduce call center call volume
- Deployed RESTful Active Learning API to introduce targeted learning feedback loop and improve intent classification model performance

TEACHING EXPERIENCE

University of Maryland, ECE Department, Introduction to Digital Logic

Jan 2019 - May 2019

- Led recitation for a discussion section of 15 students
- Received highest marks on metrics of preparedness, respect for students, and overall teaching effectiveness from all students

Projects

Northrop Grumman Corporation, Elkton, MD, Process Improvement Consultant Jan 2020 - May 2020

- Worked with a team to identify bottlenecks in information flow through 23 stakeholder interviews
- Created wire-frames as proof-of-concept to model multi-media knowledge management system
- Projected savings of \$615,000 over 5 years through improvements in productivity, proactivity, and root cause analysis

Cherehani Africa, College Park, MD, Process Improvement Consultant

Mar 2019 - May 2019

- Worked with team to consult for micro-finance startup aimed at empowering female entrepreneurs in Kenya
- Built mathematical model to estimate the long-term relationship between loan default rate and projected revenue
- Outlined plan for mentorship program to increase customer financial literacy, retention and engagement

Programming Languages: Python, Ruby, Java, MATLAB, C/C++, C#, OCaml

Software Frameworks: PyTorch, OpenCV, AllenNLP, NLTK, Flask

^{*}Equal Contribution

[†]Selected for Spotlight Presentation

^{††}Selected for Oral Presentation