Neehar Peri

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(732) 325-4663

EDUCATION

B.S. in Computer Engineering, University of Maryland - College Park — GPA: 3.92
QUEST Honors Program — *Expected May 2021*

Awards: CRA Outstanding Undergraduate Researcher (Honorable Mention)

PUBLICATIONS

- Open-3D-MOT: Open-World 3D Multi-Object Tracking — Preprint
  N Peri, A Dave, R Chellappa, S Kong, D Ramanan
- Deep k-NN Defense against Clean-label Data Poisoning Attacks — ICMLW 2020, ECCVW 2020
  N Peri*, N Gupta*, WR Huang*, L Fowl, C Zhu, S Feizi, T Goldstein, JP Dickerson
- The Devil is in the Details: Self-Supervised Attention for Vehicle Re-ID — ECCV 2020
  P Khorramshahi*, **N Peri***, JC Chen, R Chellappa
- Towards Real-Time Systems for Vehicle Re-ID, Multi-Camera Tracking, and Anomaly Detection — CVPRW 2020[†]
  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 — CVPRW 2019[†]
  P Khorramshahi, **N Peri**, A Kumar, A Shah, R Chellappa
- A Dual Path Model with Adaptive Attention for Vehicle Re-ID — ICCV 2019[††]
  P Khorramshahi, A Kumar, **N Peri**, SS Rambhatla, JC Chen, R Chellappa

[*]Equal Contribution
[†]Selected for Spotlight Presentation
[††]Selected for Oral Presentation

RESEARCH 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
- Advisors: Deva Ramanan & Shu Kong

University of Maryland, College Park, MD, *UMIACS Research Intern* — *May 2018 – Present*
- Conducting research in traffic analytics for unsupervised anomaly detection and discriminative representation learning for vehicle re-identification
- Leading research in defending against clean-label adversarial poisoning attacks
- Advisors: Rama Chellappa & John P. Dickerson

Bank of America, Charlotte, NC, *Conversational Commerce Technology Intern* — *Jun 2019 – Aug 2019*
- Developed novel deep learning pipeline to validate quality of utterance-intent pairs in chatbot conversations using PyTorch, AllenNLP, and NLTK
- Deployed RESTful Active Learning API to introduce targeted learning feedback loop and improve intent classification model performance

TEACHING EXPERIENCE

University of Maryland, ECE Department, *Undergraduate Teaching Fellow* — *Jan 2019 – May 2019*
- Led Introduction to Digital Logic recitation for a discussion section of 15 students
- Received highest marks on metrics of preparedness, respect for students, and teaching effectiveness from all students

CONSULTING EXPERIENCE

Northrop Grumman Corporation, Elkton, MD, *Process Improvement Consultant* — *Jan 2020 – May 2020*
- Worked with team of 4 to identify bottlenecks in information flow through 23 stakeholder interviews
- 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 of 4 to consult for micro-finance startup aimed at empowering female entrepreneurs in Kenya
- Outlined mentorship program to increase customer financial literacy, retention and engagement

SKILLS

Programming Languages: Python, Ruby, Java, MATLAB, C/C++, C#, OCaml
Software Frameworks: PyTorch, OpenCV, AllenNLP, NLTK, Flask