

# Neehar Peri

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## EDUCATION

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

*QUEST Honors Program*

GPA: 3.92

*Expected May 2021*

## PUBLICATIONS

- [Deep  \$k\$ -NN Defense against Clean-label Data Poisoning Attacks](#) 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<sup>†</sup>  
*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<sup>†</sup>  
*P Khorramshahi*, *N Peri*, *A Kumar*, *A Shah*, *R Chellappa*
- [A Dual Path Model with Adaptive Attention for Vehicle Re-ID](#) ICCV 2019<sup>†</sup>  
*P Khorramshahi*, *A Kumar*, *N Peri*, *SS Rambhatla*, *JC Chen*, *R Chellappa*

\*Equal Contribution

<sup>†</sup>Selected for Oral Presentation

## 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 – Dec 2020*

- 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 – 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
- Advisors: [Rama Chellappa](#) & [John P. Dickerson](#)

**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

Last Updated August 14, 2020