Michael Evans

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EDUCATION

Old Dominion University
M.S. in Computer Science, B.S. in Computer Science — Expected May 2027, May 2025
GPA: 3.95/4.00

Tidewater Community College
A.S. in Computer Science, A.S. in Business Administration — May 2023, May 2019
GPA: 3.96/4.00

PUBLICATIONS

Peer-Reviewed Papers

C2. M. Evans, M. Machado, R. Johnson, L. Escamilla, A. Vadella, B. Froemming-Aldanondo, T. Rastoskueva, M. Jostes, D. Butani, R. Kaddis, C. Chung, and J. Siegel. A Roadside Unit for Infrastructure Assisted Intersection Control of Autonomous Vehicles. *IEEE International Conference on Electro/Information Technology (EIT)* 2025.

C1. B. Froemming-Aldanondo, T. Rastoskueva, M. Evans, M. Machado, A. Vadella, L. Escamilla, R. Johnson, M. Jostes, D. Butani, R. Kaddis, C. Chung, and J. Siegel. Evaluating Low-Resource Lane Following Algorithms for Compute-Constrained Automated Vehicles. *IEEE International Conference on Artificial Intelligence, Robotics, and Control (AIRC)* 2025.

W1. M. Evans, D. Soós, E. Landers, and J. Wu. MSVEC: A Multidomain Testing Dataset for Scientific Claim Verification. *National Workshop for REU Research in Networking and Systems (REUNS @ ACM MobiHoc)* 2023.

Preprints

P1. M. A. Witherow, M. Evans, A. Temtam, H. Okhravi, and K. M. Iftekharuddin. Machine Learning-Enhanced Non-Amnestic Alzheimer's Disease Diagnosis From MRI and Clinical Features. *Brain (target)* 2025.

TALKS

A Roadside Unit for Infrastructure Assisted Intersection Control of Autonomous Vehicles
IEEE International Conference on Electro/Information Technology, Valparaiso University, 2025.

Robust Lane Following with V2X Traffic Management
Research Experience for Undergraduates, Lawrence Technological University, 2024.

The Potential of Large Language Models in Evaluating Scientific Claims
Undergraduate Research Symposium, ODU Digital Commons, 2024.

MSVEC: A Multidomain Testing Dataset for Scientific Claim Verification
The 8th National Workshop for REU Research in Networking and Systems, George Washington University, 2023.

Scientific News Verification With GPT
Research Experience for Undergraduates, Old Dominion University, 2023.

RESEARCH EXPERIENCE

Research Assistant — Sept 2024-Present
ODU Vision Lab, advised by Dr. Khan Iftekharuddin

- Fine-tuned the VGG16 convolutional neural network (CNN) with PyTorch for target identification in an autonomous surveillance robot capable of identifying, tracking, and following individuals.

- Improved an existing motion-planning algorithm in MATLAB for target following through tight, cluttered environments to enable safe indoor operation previously limited to outdoor use.
- Reduced MRI scan processing times by 15 hours through parallelizing a brain volume extraction pipeline with FreeSurfer on an HPC cluster.

NSF REU Intern - Developing Self-Drive Algorithms for Electric Vehicles May-July 2024
Lawrence Tech and Michigan State University, advised by Dr. Chung and Dr. Siegel
Computer Science & Artificial Intelligence Robotics Lab

- Designed an adaptive speed algorithm to reduce acceleration and braking in autonomous vehicles through intersections by up to 75.35%, minimizing fuel consumption and noise pollution.
- Created machine learning self-drive algorithms with DBSCAN, K-means, ROS, OpenCV, and Scikit-learn.
- Built a simulation using GazelleSim for autonomous intersection control testing in a controlled environment.

NSF REU Intern - Disinformation Detection and Analytics June-Aug 2023
Old Dominion University, advised by Dr. Jian Wu
Lab for Applied Machine Learning and Natural Language Processing Systems

- Conducted prompt engineering and hyperparameter tuning with the OpenAI API on scientific claim verification with Python.
- Increased the size of our project corpus by over 200% to improve benchmarking the effectiveness of the GPT-3.5-turbo model's ability to generalize to multiple scientific news domains.
- Calculated the precision, recall, and F1 score on zero-shot classification with the GPT-3.5-turbo model against our dataset on two sub-tasks: stance labeling and identifying sentence rationales.

PROFESSIONAL EXPERIENCE

Junior Web Developer Dec 2021-June 2022
Hard to Find Party Supplies

- Optimized legacy inventory processes with the use of Cron Jobs to save 30 minutes of work time per week.
- Maintained $1m/year eCommerce platform by performing server maintenance, writing documentation, designing web page features, managing Google AD campaigns and updating inventory of 35,000 products.
- Ported XML web page modifications from PHP to TWIG during a full server rework with the MVC design pattern.

SELECTED TECHNOLOGIES

Programming Languages
Python, C++, MATLAB, PHP, JavaScript, GDScript

Libraries & Frameworks
PyTorch, OpenCV, ROS, Scikit-learn, Pandas, NumPy, Matplotlib, React, Express

AWARDS

NSF CISE REU Travel Grant – $1,200 May 2025
Research Profile Highlight – Old Dominion University College of Sciences Newsletter Nov 2024
College of Sciences Dean's List – Old Dominion University Dec 2023-May 2025
BIO, GEO, CISE and OCE REU Travel Grant – $1,200 Sept 2023
Academic Excellence Award – Tidewater Community College April 2020, Mar 2023

SERVICE & MEMBERSHIPS

Congressional App Challenge (CAC), *Vision Lab Exhibitor* Dec 2024
Intelligent Ground Vehicle Competition (IGVC), *Surveyor* Jun 2024
Institute of Electrical and Electronics Engineers (IEEE), *Student Member* Jun 2024-Present
Association for Computing Machinery Group at ODU, *Member* Jan 2024-Present
STEM Day Expo, Wilson High School, *Volunteer Exhibitor* Mar 2019
National Mathematics Honor Society at TCC (MAΘ), *Member* Feb 2019-Present