Michael Evans

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EDUCATION

Old Dominion University, Norfolk, VA, United States — Sept 2023-May 2025
Bachelor of Science in Computer Science
GPA: 3.9/4.0

Tidewater Community College, Portsmouth, VA, United States
Associate of Science in Computer Science — May 2021-May 2023
Associate of Science in Business Administration — May 2017-May 2019
GPA: 3.9/4.0

PUBLICATIONS

Conference Proceedings

Michael Evans, Dominik Soós, Ethan Landers, and Jian Wu. 2023. MSVEC: A Multidomain Testing Dataset for Scientific Claim Verification. In *The Twenty-fourth International Symposium on Theory, Algorithmic Foundations, and Protocol Design for Mobile Networks and Mobile Computing (MobiHoc '23), October 23–26, 2023, Washington, DC, USA.* ACM, New York, NY, USA, 6 pages. https://doi.org/10.1145/3565287.3617630 **[Paper]**

Preprints

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. 2024. Vehicle-to-Everything (V2X) Communication: A Roadside Unit for Adaptive Intersection Control of Autonomous Electric Vehicles [In submission] **[Paper]**

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. 2024. Developing, Analyzing, and Evaluating Self-Drive Algorithms Using Drive-by-Wire Autonomous Vehicles [In submission] **[Paper]**

TALKS

Robust Lane Following with V2X Traffic Management
Research Experience for Undergraduates in Developing Self-Drive Algorithms for Electric Vehicles, Lawrence Technological University, 2024 (REU '24).

The Potential of Large Language Models in Evaluating Scientific Claims
Undergraduate Research Symposium; 2024 Mar 30; Norfolk, Virginia (VA): ODU Digital Commons (URS '24).

MSVEC: A Multidomain Testing Dataset for Scientific Claim Verification
The Twenty-fourth International Symposium on Theory, Algorithmic Foundations, and Protocol Design for Mobile Networks and Mobile Computing (MobiHoc '23).

Scientific News Verification With GPT
Research Experience for Undergraduates in Disinformation Detection and Analytics, Old Dominion University, 2023 (REU '23).

RESEARCH EXPERIENCE

NSF Research 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

- Worked on *Vehicle-to-Everything (V2X) Communication: A Roadside Unit for Adaptive Intersection Control of Autonomous Electric Vehicles* as the lead researcher and first author.

- Developed an adaptive speed algorithm to reduce vehicle idling, full stops, and pedestrian injuries, and incorporated robust lane-following algorithms for self-driving using ROS, OpenCV, and Scikit-learn.
- Simulated our proposed solution in a complex figure-8 intersection environment using an in-house simulator, GazelleSim, and utilized rosboard for visualization of ROS topics and traffic light states.
- Designed a V2X wireless communication architecture with a roadside unit capable of dynamically adjusting vehicle speed in response to traffic states, and deployed an Arduino-powered traffic light for visualization.

NSF Research 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

- Worked on *MSVEC: A Multidomain Testing Dataset for Scientific Claim Verification* as the lead researcher and first author.
- Contributed to the project corpus by expanding the multidomain testing dataset containing scientific claims from news articles with evidence papers from 56 to 200 discrete data objects for testing the effectiveness of the gpt-3.5-turbo model.
- Performed prompt engineering to solve the research problem of querying GPT for *Sentence Rationales* by experimenting with refining the language used in the existing query.
- Evaluated the performance of a zero-shot method with GPT-3.5 against the MSVEC dataset on two subtasks: stance labeling and identifying sentence rationales. Compared the capabilities of GPT on the task of scientific claim verification against several domain-specific datasets for training models.

INDUSTRY EXPERIENCE

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

- Worked closely with the director of IT to build and maintain $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.
- Re-wrote XML web page modifications from PHP to TWIG during complete server rework while utilizing the MVC design pattern, CSS, and HTML.
- Optimized legacy inventory processes with the use of CRON jobs to save 30 minutes of work time per week for current and future developers.
- Improved site Admin page by writing quality-of-life features for back-end users and setup network for secondary location during business expansion.

CERTIFICATIONS

CITI Program July 2023
Social and Behavioral Research - Basic/Refresher
Social and Behavioral Responsible Conduct of Research
Responsible Conduct of Research for Engineers

AWARDS

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

COMMUNITY INVOLVEMENT

Intelligent Ground Vehicle Competition (IGVC), *Surveyor* Jun 2024
University Accountability Board, *Member* March 2024-Present
Association for Computing Machinery Group at ODU, *Member* Jan 2024-Present
STEM Day Expo, Wilson High School, *Volunteer Exhibitor* March 2019
National Mathematics Honor Society at TCC (MAΘ), *Member* Feb 2019-Present