Nathan **Cooper**

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Research Interests

Software engineering, machine / deep learning applications for software engineering, information retrieval, and question & answering applications for software engineering.

Education

College of William and Mary   *Williamsburg, VA*
Ph.D. in Computer Science   *2018 - 2023*

University of West Florida   *Pensacola, FL*
B.S. in Software Engineering   *2015 - 2018*

Experience

College of William and Mary   *Williamsburg, VA*
Research Assistant   *Fall 2018 - Present*

Auburn University   *Auburn, AL*
Undergraduate Research Assistant   *Summer 2017*

University of West Florida   *Pensacola, FL*
Undergraduate Research Assistant   *Fall 2015 - Summer 2018*

Honors & Awards

2020	**Virginia Space Grant Consortium (VSGC) Fellowship,** Researching the application of graph neural networks to solve software engineering tasks. (on going)	*Williamsburg, VA*
2018	**3rd Place**, UWF's CodeFest: Developed a multiple player android app named Discoverers to inspire people to learn more about their planet's geography.	*Pensacola, FL*
2017	**Outstanding Student Award**, at UWF	*Pensacola, FL*

Journal Publications

- N. Wilde, B. Eddy, K. Patel, **N. Cooper**, V. Gamboa, B. Mishra, K. Shah, "Security for Devops Deployment Processes: Defenses, Risks, Research Directions," In International Journal of Software Engineering & Applications (IJSEA), Nov. 2016

Conference Publications

- **N. Cooper**, C. Bernal-Cárdenas, O. Chaparro, K. Moran, and D. Poshyvanyk, "It Takes Two to Tango: Combining Visual and Textual Information for Detecting Duplicate Video-Based Bug Reports," in Proceedings of the 43nd IEEE/ACM International Conference on Software Engineering (ICSE'21), Virtual (originally Madrid, Spain), 2021.
- A., Mastropaolo, S., Scalabrino, **N. Cooper**, D., Palacio, D., Poshyvanyk, R., Oliveto, and Bavota, G., "Studying the Usage of Text-To-Text Transfer Transformer to Support Code-Related Tasks," in Proceedings of the 43nd IEEE/ACM International Conference on Software Engineering (ICSE'21), Virtual (originally Madrid, Spain), 2021.
- C. Bernal-Cárdenas, **N. Cooper**, K. Moran, O. Chaparro, A. Marcus, and D. Poshyvanyk, "Translating Video Recordings of Mobile Apps into Replayable Scenarios," in Proceedings of the 42nd IEEE/ACM International Conference on Software Engineering (ICSE'20), Virtual (originally Seoul, South Korea), 2020. (20% acceptance rate)
- B. Eddy, N. Wilde, **N. Cooper**, B. Mishra, V. Gamboa, K. Shah, A. Deleon, N. Shields, "A Pilot Study on Introducing Continuous Integration and Delivery into Undergraduate Software Engineering Courses," In Proceedings of the IEEE 30th Conference on Software Engineering Education and Training (CSEE&T'17), Savannah, Georgia, 2017
- B. Eddy, N. Wilde, **N. Cooper**, B. Mishra, V. Gamboa, K. Patel, K. Shah, "CDEP: Continuous Delivery Educational Pipeline," In Proceedings of the ACM SouthEast Conference (SE'17), Kennesaw, Georgia, 2017

Teaching Experience

CS420/520 Neural Networks for Machine Learning (Undergraduate & Graduate) *College of William and Mary*

TEACHING ASSISTANT: GRADED ASSIGNMENTS AND HOSTED OFFICE HOURS *Fall 2019, Spring 2020*

CS435 Software Engineering (Undergraduate) *College of William and Mary*

INVITED LECTURER AND PROJECT LEAD

TEACHING ASSISTANT: GRADED ASSIGNMENTS AND HOSTED OFFICE HOURS *Fall 2019*

CS241 Data Structures (Undergraduate) *College of William and Mary*

TEACHING ASSISTANT: GRADED ASSIGNMENTS AND HOSTED OFFICE HOURS *Fall 2018, Spring 2019*

ACM Club's Machine Learning Workshop *University of West Florida*

PRESENTER *Fall 2016, Spring 2017*

Computer Science Tutor *University of West Florida*

ASSISTED STUDENTS WITH VARIOUS PROGRAMMING LANGUAGES AND PRESENTED AND ORGANIZED FRESHMAN LEVEL *Spring 2016 - Fall 2017*
WORKSHOPS FOR STUDENTS IN BEGINNER PROGRAMMING AND DATABASE CLASSES

References

Associate Professor Denys Poshyvanyk (Advisor) *College of William & Mary*

CLASS OF 1953 TERM DISTINGUISHED ASSOCIATE PROFESSOR

- **Position:** Associate Professor of Computer Science
- **Email:** denys@cs.wm.edu
- **Phone:** (757) 221-3476