David Shriver

CONTACT INFORMATION	Computer Science Department University of Virginia Charlottesville, VA

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RESEARCH INTERESTS

My research interests lie in the intersection of software engineering and artificial intelligence, especially in the development of program analysis techniques for machine learning systems.

EDUCATION

University of Virginia, Charlottesville, Virginia USA

Ph.D. Student, Computer Science
- Advisor: Sebastian Elbaum

University of Nebraska-Lincoln, Lincoln, Nebraska USA

M.S., Computer Science, May 2018
- Thesis: "Assessing the Quality and Stability of Recommender Systems"
- Advisor: Sebastian Elbaum

B.S., Computer Engineering, May 2016

POSITIONS HELD

Research Assistant, August 2018 - Present
Department of Computer Science, University of Virginia

Research Assistant, March 2014 - July 2018
Department of Computer Science and Engineering, University of Nebraska-Lincoln

PUBLICATIONS

Conference Publications

David Shriver, Sebastian Elbaum, Matthew B. Dwyer, and David S. Rosenblum. 2019. Evaluating Recommender System Stability with Influence-Guided Fuzzing. In Proceedings of the Thirty-Third AAAI Conference on Artificial Intelligence (AAAI '19). pp 4934-4942. DOI: `https://doi.org/10.1609/aaai.v33i01.33014934`

David Shriver. 2018. Poster: Toward the development of richer properties for recommender systems. In Proceedings of the 40th International Conference on Software Engineering: Companion Proceeedings (ICSE '18). pp 173-174. DOI: `https://doi.org/10.1145/3183440.3195082`

David Shriver, Sebastian Elbaum, and Kathryn T. Stolee. 2017. At the end of synthesis: narrowing program candidates. In Proceedings of the 39th International Conference on Software Engineering: New Ideas and Emerging Results Track (ICSE-NIER '17). pp 19-22. DOI: `https://doi.org/10.1109/ICSE-NIER.2017.7`

Under Submission

David Shriver, Dong Xu, Sebastian Elbaum, and Matthew B. Dwyer. DNNV: A Framework for Deep Neural Network Verification.

David Shriver, Sebastian Elbaum, and Matthew B. Dwyer. Differencing Neural Networks.

In Preparation

David Shriver, Dong Xu, Sebastian Elbaum, and Matthew B Dwyer. Refactoring Neural Networks for Verification. `https://arxiv.org/abs/1908.08026`

HONORS AND
AWARDS

University of Nebraska-Lincoln: graduated with Highest Distinction, May 2016

UNL CSE Department: Computer Engineering Outstanding Undergraduate Senior, 2016

MEMBERSHIPS AAAI, ACM, IEEE