Aaron Tuor

Data Scientist
Pacific Northwest National Laboratory
Computing and Analytics Division
Data Science and Analytics

Curriculum Vitae

2013

Battelle Seattle Research Center
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CS 101/102 Computer Literacy/Web Design : HTML, CSS, Libre Office Calc

Math Department Grader, WWU Mathematics Department.

o Graded daily homework assignments for university pre-calculus class.

	Open Source Software
2017	Safekit.
	Deep Learning package for system log anomaly detection.
2016	Automated Neural Graph Toolkit.
	Extensive open source package of Tensorflow, Numpy, and Python code modules.
2014	Reckit.
	Matlab implementation of low rank matrix factorization, and joint matrix factorization for recommender systems.
	Projects
2017	Biofeeds, PNNL.
	Natural language processing for biosurveillance using automated news feeds.
2017 2018	Fiery Future, PNNL.
2010	Deep learning models for automated vegetation mapping from satellite imagery and ecological niche factors.
2017	MONSTR: Mining Online Narratives from Social MulTimedia Relationships, <i>PNNL</i> .
	Deep learning and computer vision.
2016	Stream Adaptive Foraging For Evidence , <i>PNNL/WWU</i> . Streaming analytics for cyber security use case.
2014	Reckit, WWU.
2016	Matrix factorization, joint matrix factorization, and deep learning for recommendation systems.
	Publications
[Brown et al., 2018]	Brown, A., Tuor, A., Hutchinson, B., and Nichols, N. N. (2018). Recurrent Neural Network Attention Mechanisms for Interpretable System Log Anomaly Detection . <i>arXiv preprint</i> .
[Olney et al., 2018]	Olney, R., Tuor, A., Jagodzinski, F., and Hutchinson, B (2018). Protein Mutation Stability Ternary Classification using Neural Networks and Rigidity Analysis . <i>Proceedings of 10th International Conference on Bioinformatics and Computational Biology (BICOB 2018)</i> .

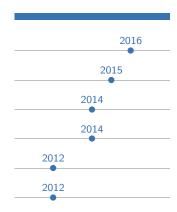
[Tuor et al., 2018] Tuor, A., Baerwolf, R., Knowles, N., Hutchinson, B., Nichols, N., and Jasper, R. (2018). Recurrent Neural Network Language Models for Open Vocabulary Event-Level Cyber Anomaly Detection. *Proceedings of Artificial*

Intelligence in Cyber Security Workshop, AAAI 2018.

[Tuor et al., 2017a] Tuor, A., Kaplan, S., Hutchinson, B., Nichols, N., and Robinson, S. (2017a). Deep learning for unsupervised insider threat detection in structured cybersecurity data streams. Proceedings of Artificial Intelligence in Cyber Security Workshop, AAAI 2017.

[Tuor et al., 2017b]

Tuor, A., Kaplan, S., Hutchinson, B., Nichols, N., and Robinson, S. (2017b). **Predicting User Roles from Computer Logs Using Recurrent Neural Networks**. *Proceedings of Association for Advancement of Artificial Intelligence 2018*, pages 4993–4994.



Awards

Track Global Fellowship in Computer Science, WWU.

Track Global Fellowship in Computer Science, WWU.

Computer Science Graduate Fellowship, WWU.

Outstanding Academic Achievement, WWU Linguistics, WWU.

President's List (Winter, Fall), WWU.

Non-Traditional Student Scholarship , WWU.