

Christian Kauten

Graduate Research Assistant at Auburn University
<https://kautenja.github.io>

August 4, 2019
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Education

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|---|---------------------------|
| Auburn University
<i>Ph.D. Software Engineering</i> | Auburn, AL
2017 – 2020 |
| Auburn University
<i>M.S. Software Engineering (Non-Thesis)</i> | Auburn, AL
2017 – 2019 |
| <ul style="list-style-type: none">– Committee: Prof. Xiao Qin (advisor), Prof. Ashish Gupta (advisor), Prof. Dean Hendrix– Woltosz Fellow: 2017 – 2019 | |
| Auburn University
<i>B.S. Software Engineering</i> | Auburn, AL
2013 – 2017 |
| <ul style="list-style-type: none">– Deans List: Fall 2016, Spring 2017 | |

Research Experience

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| Auburn University
<i>Research Assistant under Prof. Ashish Gupta</i> | Auburn, AL
2017 – 2020 |
| <ul style="list-style-type: none">– Used machine learning to model donor retention for a US Blood Center– Conducted DHS-funded research on financial sector vulnerability– Developed a deep learning-based intelligence augmentation system for autonomous vehicles | |

Publications

1. Christian Kauten, Ashish Gupta, Xiao Qin, Han Li, and David Bevly. A perception augmentation system for autonomous vehicles. In *Pre-ICIS SIGDSA Symposium on Decision Analytics Connecting People, Data, and Things*, San Francisco, CA, USA, December 2018.
2. Xiaopu Peng, Christian Kauten, Chaowei Zhang, Thomas Heckwolf, Jianzhou Mao, Taha Tekreeti, and Xiao Qin. REDUX: Managing renewable energy in data centers using distributed UPS systems. In *IEEE SmartCloud*, New York, USA, September 2018.
3. Chaowei Zhang, Ashish Gupta, Christian Kauten, Amit V. Deokar, and Xiao Qin. Detecting fake news for reducing misinformation risks using analytics approaches. *European Journal of Operational Research*, 2019.

Presentations

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| A Perception Augmentation System for Autonomous Vehicles | |
| <ul style="list-style-type: none">– 2018 Pre-ICIS SIGDSA Symposium– Prototype Demonstration | San Francisco, CA
December, 2018 |

Awards, Grants & Honors

Woltosz Graduate Fellowship	2017 – 2020
Holy Innocents' Computer Science Award	2013
Eagle Scout Award	2011

Selected Open Source Projects (<https://github.com/Kautenja>)

Super Mario Bros for Open AI Gym	Python
<i>A framework for training reinforcement learning agents to play Super Mario Bros.</i>	2018
NESpy Emulation System	C++, Python
<i>A python interface for developing NES-based reinforcement learning environments.</i>	2018

Skills

Numerical Analysis and Computer Science Computational Science, Algorithm Design & Analysis, Artificial Intelligence, Machine Learning, Parallel Programming, Distributed Systems, Data Structures

Software Engineering Test & Behavior Driven Development, Software Modeling, Debugging, Profiling, Code Optimization, Computer Architecture, Documentation, Source Control, Software Process

Programming Environments Python, C++, Swift, \LaTeX , HTML, CSS, JavaScript

Technologies Keras, TensorFlow, CoreML, SciKit Learn, NumPy