Chase Zimmerman

Sandia National Laboratories
Quantitative Modeling and Analysis
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Research Interests

Quantum Computing, Quantum Information, Machine Learning/Artificial Intelligence, Computational Physics, Hardware Acceleration, Quantitative Finance.

Education

B.Sc. Computer Engineering and Computer Science, University of Southern California, 2022.

GPA 3.67/4.00

B.A. Physics, University of Southern California, 2022.

Research Experience

Machine Learning Research Intern, Sandia National Laboratories, May 2018–present.

Developed a deep learning approach to automatic feature extraction in raw network packet data.

Designed low-level C++ applications to process and vectorize large amounts of data.

Applied anomaly detection algorithms to engineering systems.

Year-round position.

Industry Experience

Quantitative Developer, Splay Tree Capital, Nov 2018–present.

Developed a custom backtesting platform for quantitative trading algorithms.

Implemented and designed trading algorithms.

Web Development Intern, Sandia National Laboratories, Jan 2018–May 2018.

Developed interactive web applications designed to display and manage geospatial data served from GIS software.

Detecting web application vulnerabilities using static and dynamic application security testing methods.

Publications

1. E.L. Goodman, C. Zimmerman, C. Hudson (2019). Packet2Vec: Utlizing Word2Vec for Feature Extraction in Packet Data. *Proceedings, Machine Learning and Data Mining in Pattern Recognition* 15 vol. 1, 161–175.

Teaching

Teaching Assistant, *Data Structures and Object Oriented Design (CSCI 104)*, University of Southern California, Prof. Aaron Coté, Prof. Sandra Batista, Prof. Mark Redekopp, Spring 2019–present.

Awards and Honors

Dean's List, USC Viterbi School of Engineering, Fall 2018 – Spring 2019

Skills

Data and Computer Science

Machine Learning, Data Mining, Optimization, Artificial Intelligence, Linear Algebra, Parallel Programming, Distributed Systems, Data Structures.

Computer and Electrical Engineering

FPGA Programming (Verilog), IoT, Networking.

Software Development

Python, C/C++, JavaScript, Java, SQL, Assembly.

Technologies

ML Frameworks (Tensorflow, PyTorch, etc.), web frameworks, databases, linux, git, vim, tmux, LaTeX.

Last updated: February 27, 2020

`https://www.thechase.io/`