Cameron McGinley

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Education

University of California, San Diego — La Jolla, CA
M.S. in Computer Science — September 2022 – December 2023

Wichita State University — Wichita, KS
B.S. in Computer Science; Minor in Mathematics — August 2018 – May 2022

- *GPA*: 3.99 / 4.00

Experience

United States Department of Defense — June 2022 – August 2022
Software Engineer Intern

NetApp — Wichita, KS
Test Engineer — May 2019 – May 2022

- Automated testing of data storage system firmware to ensure its stability and interoperability with diverse configurations of servers, switches, drives, and protocols (e.g., NVMe).
- Pinpointed software defects and worked alongside QA and SW teams on solutions and implementation.
- Developed Python software to interface with NetApp storage systems to collect and track configuration data to aid testing teams.

Purdue University — West Lafayette, IN
Research Intern; Advisor: Dr. Yongle Zhang — June 2021 – July 2021

- Developed Python software to scrape open-source Java code and bug issues/commits through Jira and Git to build a dataset of buggy code and bug patches.
- Built algorithm to locate buggy lines of code through entropy calculations on n-grams of tokenized code, finding n% higher entropy in lines of code containing bugs.
- Integrated graph neural networks using PyTorch to improve bug detection by working on code dependency graphs.

Wichita State University — Wichita, KS
Research Intern; Advisor: Dr. Sergio Salinas — June 2020 – August 2020

- Presented at Kansas State Capitol (2021), published at 2021 IEEE International Conference on Big Data.
- Utilized Python, TensorFlow, and Keras to build a malicious email classifier on a convolutional neural network, optimizing a final model for accuracy (98.1%), recall (98.1%), and precision (98.3%).
- Developed prototype natural language generation software, built on OpenAI's GPT-2, to imitate victims while responding to malicious emails, aimed at wasting attackers' time.

Skills

- *Programming*: Python, C++, JavaScript, SQL, MATLAB, Lua
- *Operating Systems*: Windows, Linux (Ubuntu, Red Hat, SUSE)
- *Other*: Git, React, Node.js, MySQL

Publications

C. McGinley and S. Salinas, "Convolutional Neural Network Optimization for Phishing Email Classification," *2021 IEEE International Conference on Big Data (Big Data)*, 2021, pp. 5609-5613, doi: 10.1109/BigData52589.2021.9671531.