

# Robert Martino

☎ (518) 588-7213 • ✉ bobbydmartino@gmail.com • 🌐 www.bobbymartino.com  
🔗 bobbydmartino • in bobbymartino

## Education

- **Rensselaer Polytechnic Institute** **Troy, NY**  
*M.S. Computer Science, Cum Laude, GPA: 3.52/ 4.0* 2017-2018
- **Rensselaer Polytechnic Institute** **Troy, NY**  
*B.S. Computer Science, Cum Laude, GPA: 3.60/ 4.0* 2014-2017

## Experience

- **Assured Information Security Inc.** **Rome, NY**  
*Research Scientist* January 2019 - Present  
*Hypervisor Threat Analysis:*
  - Conducted Internal R&D projects on using machine learning to detect hypervisor intrusion from the host and created an evolutionary fuzzing methodology for binary analysis
  - Synthesized the projects for DARPA's SHEATH program, used evolutionary fuzzing in a sandboxed hypervisor to detect trojans on network interface cards
  - Publication came out of the work: FALCHION, Inman Et al. GOMACTech 2021*Binary Comparison and Obfuscation:*
  - Conducted Internal R&D project for creating comparison metrics for obfuscated binaries using graph neural networks on control flow graphs
  - Recruited to the software engineering team to integrate binary comparison into existing production technology*Adversarial Reinforcement Learning:*
  - Conducted Internal R&D project on adversarial reinforcement learning for the board game Stratego
  - Created triggers for exploiting Deepmind's AlphaStar on Starcraft2 minigames
- **GE Global Research Center** **Niskayuna, NY**  
*Fellow Intern* May 2018 - August 2018
  - Successfully developed proof-of-concept machine learning prediction models for ultrasound images of subcutaneous lipomas
  - Created dataset and pipeline for the models, and achieved 85% classification accuracy on a noisy dataset
  - Reverse engineered a fault test generator for data extraction and integrated it into an industrial ethereum blockchain
- **Systems & Technology Research Inc.** **Boston, MA**  
*Machine Learning Intern* May 2017- August 2017
  - Analyzed and predicted location and timing of notable events in the Middle East for IARPA's Mercury Program
  - Applied unsupervised learning to cluster data-sparse areas into prediction targets
  - Employed structured prediction to exploit geospatial relationships of prediction targets for higher accuracy

## Selected Projects

- **Strat-O-Matic Football Server**  
*January 2021 - Present*
  - Currently implementing the classic multiplayer sports board game Strat-O-Matic in Python
  - Stood up the game as a web app with Django in Docker, using Redis to serve multiplayer functionality
  - Creating complex and modifiable statistical models for all NFL players from 1956-2020 to facilitate hyper-realistic game play between teams from different eras
- **DilbertGAN**  
*October 2019 - August 2020*
  - Scraped and cleaned custom dataset of all *Dilbert* comics since 1989 along with corresponding text and labels
  - Created a test bed with the data for testing the latest GAN models and also experimenting with novel GAN approaches to image and natural language coherence across panels

## Skills

- **Primary Language:**  
*Python - Tensorflow, Keras, Pytorch, Pandas, Numpy, Opencv, Sci-kit Learn*
- **Strong proficiency:**  
*Bash Scripting, Git, Linux, Docker, SQL, C, Wireshark, Agile Software Development, Technical Writing*

## Security Clearance

- **Top Secret (TS) Clearance**