DINKO DERMENDZHIEV

School of Electrical and Computer Engineering
School of Cybersecurity and Privacy

Georgia Institute of Technology
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RESEARCH INTERESTS

Software and Systems Security, Cyber Forensics, Binary Analysis and Instrumentation, AI/ML Security and Privacy.

EDUCATION

Georgia Institute of Technology (GT)   *2024 - Present*
Ph.D. in Electrical and Computer Engineering
Advisor: Dr. Brendan Saltaformaggio
GPA: 4.0 / 4.0

Georgia Institute of Technology (GT)   *2021 - 2024*
B.S. in Computer Engineering
GPA: 3.88 / 4.0

EXPERIENCE

Massachusetts Institute of Technology (MIT) Lincoln Laboratory   *May 2024 - Present*
Research Intern   *Boston, MA*

Georgia Institute of Technology (GT) Cyber Forensics Innovation Laboratory   *Jun 2023 - Present*
Research Assistant   *Atlanta, GA*

· Developing novel memory forensics tooling for the investigation of Machine Learning processes.
· Recovering and reconstructing unique, edge-device DL models to enable auditing and white-box analysis.
· Investigating strategies for root cause analysis of rogue AI systems for use in cyber-forensic investigation.

Comcast   *Jun 2022 - Aug 2022*
Software Engineering Intern   *Atlanta, GA*

· Developed and deployed two ML solutions to automate server health monitoring and anomaly detection.
· Automated model use and maintenance (data retrieval, pre-processing, model consumption, retraining).
· Mapped and simulated a database migration from SQL Server (relational) to CosmosDB (JSON).
· Created an interactive CRUD web app to demonstrate the new data store and its throughput performance.

HONORS AND AWARDS

Georgia Tech Leadership Fellow   *2024-2025*
Georgia Institute of Technology

Georgia Tech Electrical and Computer Engineering Fellowship   *2024-2025*
Georgia Institute of Technology

Georgia Tech Prestige Scholarship   *2023-2024*
Georgia Institute of Technology

Zell Miller Scholarship   *2021-2024*
Georgia Institute of Technology

Georgia Commitment Scholarship   *2019-2021*
University of Georgia

Zell Miller Scholarship *2019-2021*
University of Georgia

RELEVANT COURSEWORK

- Malware Reverse Engineering
- Advanced Malware Analysis
- Cybersecurity of Drones
- Network & Computer Security
- Design of Operating Systems
- Advanced Operating Systems
- Computer Architecture
- Computer Networking
- Compilers & Interpreters
- Data Structures & Algos
- Design of Algorithms
- Probability & Statistics

TEACHING

ECE2035: Assembly and C Programming *Summer 2023*
Teaching Assistant - Georgia Institute of Technology

ECE2031: Digital Design Lab *Summer 2023*
Teaching Assistant - Georgia Institute of Technology

ECE2035: Assembly and C Programming *Spring 2023*
Teaching Assistant - Georgia Institute of Technology

- Assembly implementation of high-level programming language storage, control, and procedural constructs.
- Guided students through the implementation of algorithms in C and assembly, optimizing for runtime performance.
- Responsible for weekly office hours, answering online forums, recitations, and grading assignments and projects.

ECE2031: Digital Design Lab *Spring 2023*
Teaching Assistant - Georgia Institute of Technology

- VHDL and Quartus Prime for FPGA design, simulation, synthesis, and verification.
- Guided young engineers through problem solving, troubleshooting, and testing of SW/HW systems.
- Administered an ECE-tailored Technical Communications Protocol teaching effective collaboration, documentation, and presentation skills to 50+ students every semester.

ENGR2120: Engineering Statics *Spring 2021*
Teaching Assistant - University of Georgia

ENGR1120: CAD Modeling *Spring 2021*
Teaching Assistant - University of Georgia

SERVICE

Volunteer

IEEE Secure Development Conference *Oct 2023*