

DINKO DERMENDZHIEV

School of Electrical and Computer Engineering

School of Cybersecurity and Privacy

Georgia Institute of Technology

Atlanta, GA 30332, USA

[[ddermendzhiev.github.io](https://github.com/ddermendzhiev) / dermendzhiev@gatech.edu]

RESEARCH INTERESTS

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

EDUCATION

Ph.D. in Electrical and Computer Engineering

2024 - Present

Georgia Institute of Technology (GT)

Advisor: Dr. Brendan Saltaformaggio

GPA: 4.0 / 4.0

B.S. in Computer Engineering

2021 - 2024

Georgia Institute of Technology (GT)

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

RELEVANT COURSEWORK

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