DERIN CAYIR

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EDUCATION

Florida International University	Miami, FL
MS Computer Science *GPA: 4.0*	Dec 2022 - Jan 2025
Bilkent University	Turkey
BSc Electrical and Electronics Engineering *GPA: 3.1*	Sep 2018 - Aug 2022

RESEARCH PUBLICATIONS AND PROJECTS

SoK Paper on Extended Reality Device's Security and Privacy
Published a Systematization of Knowledge (SoK) paper on the prestigious journal IEEE Security and Privacy's Special Issue on Security and Privacy for the Metaverse

Speech Content Extraction from VR IMU Sensors *Unreal Engine, Python, Matlab, C++*
Found that through a benign-looking malicious app, the data collected from accelerometer and gyroscope sensors can reveal the speech content such as digits said, SSN, birthdate, as well as the gender of the user with 90% accuracy. Analyzed different time and frequency domain features with off-the-shelf Machine Learning models. Submitted this work to IEEE Security and Privacy Conference.

WORK EXPERIENCE

Florida International University	Miami, FL
Graduate Research Assistant	Aug 2022 - Present

- Member of the The Cyber-Physical Systems Security Lab (CSL)
- Working on the security and privacy of Augmented Reality, Virtual Reality, and Mixed Reality Devices

Florida International University	Miami, FL
Teaching Assistant	Aug 2023 - Present

- TA for two Graduate Level EEL 6787 Network Security, and EEE 5718 IoT Security and Privacy Classes
- Conducted 11 hands-on labs where each lab we used a different IoT device

TUBITAK	Turkey
Researcher	Dec 2021 - Aug 2022

- The Scientific and Technological Research Council of Turkey
- Worked on different telecommunication projects

ARCELIK	Turkey
Project Team Member	Aug 2021 - Aug 2022

- Created a refrigerator system that is powered by solar panels
- Worked on the feedback control system of converters

HAVELSAN	Turkey
Software Engineering Intern	Jun 2021 - Aug 2021

- Worked on autonomous vehicle systems and DevOps team
- Completed projects on sensor calibration and object detection

ISSD	Turkey
Software Engineering Intern	Jun 2020 - Aug 2020

- Created an automatic live outdoor parking lot system that displayed the number of available lots from camera input
- Designed algorithms to accurately count the empty lots even under varying lighting conditions

SKILLS

Programming Languages:	C/C++, Python, VHDL, Assembly 8051
Technical Softwares:	MATLAB, ROS, Simulink, LTspice, Proteus
Security Tools:	Wireshark
ML:	Scikit-learn, NumPy, Pandas, TensorFlow
Productivity:	Latex, MS Office
Related Coursework:	Data Structures and Algorithms, Machine Learning, Artificial Intelligence
(cont.):	Statistics and Data Analytics, Probability, Principles of Database Management Systems