

DOGUHAN YEKE

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SUMMARY

I am a systems security researcher in the Department of Computer Science at Purdue University, working in the PurSec Lab. My research primarily focuses on mobile security, including smartphones and smartwatches; the safety and security of autonomous systems, such as UAVs; and practical deep learning applications in security.

EDUCATION

Purdue University, US *August 2021 - Ongoing*
Ph.D, Computer Science *3.65/4.00*
Advisors: Asst.Prof. Z. Berkay Celik and Asst.Prof. Antonio Bianchi

Middle East Technical University(METU), Turkey *June 2017 - July, 2020*
M.Sc, Computer Engineering *4.00/4.00*
Graduated with the top grade, Ranked 1st
Thesis: Improving Document Ranking with Query Expansion based on BERT Word Embeddings
Advisor: Prof.Dr. Nihan Kesim Cicekli

Middle East Technical University(METU), Turkey *September 2013 - June 2017*
B.Sc, Computer Engineering *3.24/4.00*
Graduated with Honors
Advisor: Assoc.Prof. Yusuf Sahillioglu

ACADEMIC AND RESEARCH EXPERIENCE

Department of Computer Science at Purdue University, US *August 2021 - Ongoing*
Research and Teaching Assistant

- CS307: Software Engineering, CS251: Data Structures and Algorithms

Department of Computer Engineering at METU, Turkey *August 2018 - July 2021*
Research and Teaching Assistant

- CEng492: Computer Engineering Design, CEng489: Introduction to Computer Security, CEng350: Software Engineering, CEng331: Computer Organization

eNTERFACE at University of Mons, Belgium *June 2015 - August 2015*
Undergraduate Research Assistant

- Implemented Python modules for the classification of very large number of objects and used the Neo4j Graph database to visualize the classification results.

TSK Modsimmer, Turkey *August 2015 - September 2015*
Summer Internship

- Wrote a simulation of a fire forest using C++ with concurrency and also implemented an interface with QT.

- Given a point of fire, the program estimates where the fire will spread using different parameters like wind speed and tree population.

Department of Computer Engineering at METU, Turkey *September 2015 - January 2015*
Undergraduate Teaching Assistant

- CEng230: Introduction to C Programming

PEER-REVIEWED PUBLICATIONS

C1 **Doguhan Yeke**, Muhammad Ibrahim, Guliz Seray Tuncay, Habiba Farrukh, Abdullah Imran, Antonio Bianchi, and Z. Berkay Celik
Wears my Data? Understanding the Cross-Device Runtime Permission Model in Wearables
[Paper], [Code], [Slides], [News]
Proceedings of the IEEE Security and Privacy (S&P), 2024.

TALKS

Wear OS project, Android Security and Privacy Research (ASPIRE), Google (remote), October 2022

BUGS DISCOVERED

Location Privacy, awarded \$500 bug bounty by Google.

INDUSTRIAL EXPERIENCE

Comodo, Turkey *June 2017 - August 2018*
Software Developer

- Worked as a Backend Developer: used different tech stacks like Flask, Express, Javascript, Relational Databases, REST APIs, Redis, AWS and testing, etc.
- Worked as a Security Researcher: implemented Deep Learning models for detecting malware and integrating third-party libraries into our system.
- Worked with static and dynamic analysis tools such as Cuckoo to detect the malware.

SAP Development Center, Turkey *June 2016 - September 2016*
Student(Intern) Software Developer

- Worked in the Security team as a Golang developer in an agile team during my internship.

AWARDS AND HONORS

2023: Served at the **NSF ACTION GATE**, Institute for Agent-based Cyber Threat Intelligence and Operation, 2023.

2023: Student contributor of **Google ASPIRE Award**

2022: Student contributor of **Google ASPIRE Award**

2021: **Interpersonal Conversation Partner** at Purdue University

2019: **Best Course Performance Award** at METU.

2019: **Highest Departmental cGPA** in all graduates of Master's Degree at METU.

2013-2017: **High Honor Student** in multiple semesters of Bachelor's Degree at METU.

2011-2012: Ranked 5th in Turkey in **Mathematics Olympiads** in High School conducted by the Scientific and Technological Research Council of Turkey (TUBITAK), sponsored by OYAK.

SERVICES

External reviewer at ACM WiSec 2024.

PROJECTS

Industrial Control System Modeling with SCEPTRE Framework *May 2022 - October 2022*
Sandia National Laboratories

- Collaborated with Sandia Labs while studying at Purdue University in the summer of 2022.
- Deployed Cyber Emulation, Modeling, and Analysis Tools on the SOL4CE.

TECHNICAL STRENGTHS

FullStack: React, Redux, Node.js, Express, MongoDB, Typescript, Mongoose, AWS Services, In-memory database.

Languages: Python, C++, C, Javascript, Java, Scala, R, Assembly, Haskell, Verilog.

Tools: Tensorflow, Keras, PyTorch, AWS, RabbitMQ, Jupyter Notebook etc.

Toefl Score: 100 Reading: 26, Listening: 26, Speaking: 25, Writing: 23

GRE Score: Quantitative: 167, Verbal: 141, Analytical Writing: 3,5

COURSES TAKEN

Undergraduate Courses: Object Oriented Programming, Cloud Computing, Machine Learning

Graduate Courses: Information Security, IoT Security, Distributed Systems, Computer Networks, Algorithms, Big Data Analytics, Advanced Deep Learning, Statistical Data Analysis, Information Retrieval, Computational Geometry, Algorithmic Trading