

EDUCATION

North Carolina State University , Raleigh, NC	Jan. 2021 – May 2025(Exp.)
Ph.D. Computer Engineering, HECTOR Lab, Advisor: Dr. Aydin Aysu	
Sabanci University , Istanbul, Turkey	Sept. 2014 – Jun. 2020
B.S. Computer Science, Double Major in B.Eng. Electronic Engineering, Minor in Psychology, 2020 (GPA: 3.61)	
Hong Kong University of Science and Technology , Hong Kong	Jan. 2018 – Jun. 2018
Exchange Student on Electronic Engineering and Computer Science, 2018	

WORK EXPERIENCES

Sabanci University, CISEC Lab – Research and Teaching Assistant	March 2020 – Jan 2021
<ul style="list-style-type: none">Worked on homomorphic encryption and post-quantum crypto optimization and applications both on hardware and softwareCourses: Introduction and Advance Programming with C++, Logic and System Design	
A-STAR, Institute for Infocomm Research – Security Research Intern	July 2019 – Sept. 2019
<ul style="list-style-type: none">Worked on implementation of privacy preserving protocols on Deep Learning and improvement of those protocolsApplied knowledge of Multiparty Computing Security (HE, GC) to CNN models with using less resources	
Boston University, Secure Systems Lab - Summer Intern / Advisor: Prof. Manuel Egele	July 2017 – Sept. 2017
<ul style="list-style-type: none">Analyzed potential security leakages with analyzing Twitter data whether it has homoglyph characters leakageBuilt a Web Scraper System which collects information using 30 Cluster and message broker system RabbitMQ	
Accenture – Software Engineering Intern	June 2019 – July 2019
<ul style="list-style-type: none">Implemented business services and RESTful APIs at backend side of employee vacation tracking projectIntegrated event and time triggered serverless applications into microservice architecture on Microsoft Azure environment	
Multinet Inventiv - Software Engineering Intern	July 2018 – Jan. 2019
<ul style="list-style-type: none">Worked on Fraud Detection and Prevention System which uses microservices and machine learning to identify fraudImplemented REST microservices (Spring), unit and integration tests (JUnit) and designed MSSQL database, front-end web application using Primefaces on java environment	

RELEVANT COURSEWORK

- Cryptography – CS 411, Sabanci University (SU)
- Operating and Database Systems – CS 307, CS 306, SU
- Computer Networks and Security – CS 432, SU
- Computer Organization – COMP 2611, HKUST
- Machine Learning – Coursera, Prof. Andrew Ng
- HDL, Digital and Logic Systems – EE 310, CS 303 SU

PROJECTS

A Hardware Accelerator for CRYSTALS-KYBER PQC Scheme - Advisor: Prof. ErKay Savas	Sept. 2020 – Nov. 2020
<ul style="list-style-type: none">Designed a FPGA-based accelerator for polynomial multiplication for post-quantum cryptography and published on DATE21	
Secure Tumor Classification using Homomorphic Encryption - Advisor: Prof. ErKay Savas	Oct. 2020 – Nov. 2020
<ul style="list-style-type: none">Implemented an inference by using homomorphic enc. and machine learning algorithms. Placed 5th in IDASH20 competition	
Intrusion Detection System on IoT Devices - Bachelor's Thesis	Sept. 2018 – Sept. 2019
<ul style="list-style-type: none">Implemented Machine Learning models on network traffic data to identify intrusions with Prof. Albert LeviCreated different network traffics for different scenarios using 6-LoWPAN, RPL protocols and implemented different attacks	

HONOR AND AWARDS

Graduate Merit Award and Graduate Student Support Plan – NC State University	Apr. 2020
Singapore International Pre-Graduate Award (SIPGA) – A-STAR	May. 2019
High Certificate of Dean (All Times) - Sabanci University, Faculty of Engineering and Natural Science	Sept. 2015 – June 2020
The National University Entrance Exam	June 2014
<ul style="list-style-type: none">Being among to first thousand (635th) in 2 million students and earned scholarship from Sabanci University	
TÜBİTAK Summer School Invitation - The Scientific and Technological Research Council of Turkey	Apr. 2012 and Apr. 2013
<ul style="list-style-type: none">Being among to first fifty on National Chemistry Competition and invited to summer school 2 times	

SKILLS

Proficient in C++, Python, Unix, Java, C#, Verilog HDL
Familiar with JavaScript, HTML, CSS, SQL

Languages: English (*Advanced*), Turkish (*Native*), German (*Beginner*)
Technologies: Git, MySQL, Spring, Hibernate, Junit, Docker, TDD, Azure, Kali Tools, WordPress