Ahmet **Kapkic**

YOUNGSTOWN · OHIO · USA

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Research Interest

I am interested in creating value from data and making it secure through AI methods. Currently, I am excited about the opportunities with securing systems, utilizing Machine/Reinforcement Learning for cybersecurity and newest innovations in generative text, GPT-3 being the most notable. I investigate these fields through my research projects and my role as a member in the Secure Systems Lab at New York University. Previously I have conducted and research in the fields of Cyber Security, Artificial Intelligence (Image Recognition), Big Data Analytics, and Machine Learning, analyzing file logs to improve cloud storage system performances.

Education

Youngstown State University   *Youngstown, Ohio, USA*

MASTERS IN COMPUTING INFORMATION SYSTEMS, GPA: 4.00/4.00   *Aug 2019 - May 2021*

- **Advised by Assoc. Prof. Dr. Yong Zhang**
- **2019 & 2020 YSU Graduate College Premiere Scholarship**

Gazi University   *Ankara, Turkey*

B.SC. COMPUTER ENGINEERING, GPA: 3.01/4.00   *Sep 2014 - Oct 2018*

- **TUBITAK 2242 District Finalist**
- **TUBITAK 2209-B Thesis Support**
- **Dell EMC Envision the Future Competition Finalist**
- **Worked at the Biometric and IPv6 Laboratory for 4 years under the supervision of Prof. Dr. Seref Sagiroglu**

Experience

New York University   *New York, USA*

SECURE SYSTEMS LAB   *May 2021 -*

Working as a part of the Lind project team, which is a single-process sandbox that provides an option to safely execute programs and control its resource (network, file, memory, cpu, etc.) usage at the process granularity. `ssl.engineering.nyu.edu/projects#lind`.

Youngstown State University   *Youngstown, Ohio*

PART-TIME FACULTY   *Aug 2021 -*

Actively teaching Data Management, Development of Databases, System Configuration and Maintenance classes. Taught Human-Computer Interaction and E-commerce Programming classes.

GRADUATE ASSISTANT   *Aug 2019 - May 2021*

TA of the CSIS 5801 Software Engineering, responsible from partial instruction, creating supplemental materials and grading.

Futuretech   *Ankara, Turkey*

SOFTWARE ENGINEER, FULL-TIME   *May 2019 - Aug 2019*

Maintained and updated both front and backends of FaceAnalytic, a system that does personality analysis from face images. Developed an iOS app for it and published it to the App Store. Managed the hosting and domain systems and published the company's website (Stack: Java, Swift, Jenkins, Wordpress).

Basarsoft   *Ankara, Turkey*

SOFTWARE ENGINEER, ANDROID   *Jun 2017 - Aug 2017*

Had a 2-month internship at the R&D department, focusing on Mobile Application Development and GIS (Stack: Java, Swift, GitLab).

HP2M   *Ankara, Turkey*

SOFTWARE ENGINEER, LEAD   *Mar 2015 - Apr 2017*

Led a team of 4 to develop several apps in full stack. Led the app initiative on "Muhafiz", a panic button application designed for emergency situations. Published on both Android and iOS marketplaces. Created and managed hp2m.com for two years. Created and published "Gazi+", a student information system on Android for students of Gazi University (Stack: Swift, Obj-C, Java, PHP, MySQL/CSS, HTML, PHP, Google Analytics/SEO).

Teaching

Youngstown State University   *Faculty*

Data Management/Development of Databases, DATX 5801/CSIS 3722   *Spring 2022*

Teaching the fundamentals of Database design, SQL, Big Data, Oracle DB. 35 students.

                                                                                          Faculty

E-Commerce Programming, CSCI 3760   *Fall 2021-Spring 2022*

Teaching with a focus on server side programming related to electronic commerce, using PHP, SQL, and MySQL. 20 Students.

                                                                                          Faculty

Human-Computer Interaction, CSIS 3731   *Fall 2021*

Teaching the fundamentals of HCI, properties of a good UI and UX, and the theories. Using Designing the User Interface as the source material and real-life examples. 28 Students.

                                                                                          Faculty

System Configuration and Maintenance, CSIS 2620   *Fall 2021*

Providing the student with the information necessary to install, maintain and troubleshoot hardware and software components of computer systems. With a focus on CompTIA's Latest A+ 220-1001/1002 objectives. 17 Students.

                                                                                          Teaching Assistant

Software Engineering, CSIS 5801   *Fall 2019*

Responsible for creating and teaching course materials, grading of quizzes and providing help to a class of 27.

People Caring for the Future (CARFU)   *Instructor*

Android Development   *Mar 2016*

Volunteered as an instructor teaching high school students Android Development for six weeks as a social responsibility project conducted by a collaboration between Gazi University and CARFU.

Community

ISACA Ankara Chapter   *Ankara, Turkey*

Board Member   *Dec. 2018 - now*

Working with industry professionals in Information System Auditing, organizing events, and translating COBIT framework books into Turkish.

Gazi BIDISEC (Big Data and Information Security Center)   *Ankara, Turkey*

Member   *Apr. 2018 - May 2019*

Writing articles and doing research on Big Data and Information Security. Also, I have built and managed a Hadoop cluster from scratch to be used internally in the college for Big Data research purposes.

GaziCyber   *Gazi University*

Founding President   *May. 2016 - Sep. 2017*

To raise Cyber Security awareness and inspire students, I founded a Cyber Security community. Given the positive feedback, we went on to host our events, participate in CTF competitions and academic conferences, and have received several awards.

Oracle Academy   *Ankara, Turkey*

Translator   *Mar 2015 - Aug 2015*

Volunteered as a part of the translation team localizing Alice3 software in Turkish in a collaboration between Carnegie Mellon University and Oracle Academy Ankara division.

Journal Publications

An Analysis on Wireless Network Device Access Security and Awareness: Case Study of Ankara   *PUBLISHED*

International Journal of Information Security Engineering, Volume: 1, Issue: 1, Pages: 11-19   *2015*

https://www.researchgate.net/publication/313847809_KABLOSUZ_AG_CIHAZI_ERISIM_GUVENLIGI_VE_FARKINDALIK_ANALIZI_ANKARA_ORNEGI

U. Yavanoglu, A. Kapkic, S. T. Yagci, C. Aktepe, G. Tuncer

Conference Publications

Big Data Analytics in Cloud File Logs   *ORAL*

IEEE International Congress on Big Data, Deep Learning and Fighting Cyber Terrorism (IBIGDELFT)   *2018*

A. Kapkic, E. Cakici, E. Canbaz

Assessment of Wireless and IoT Security Awareness: A Case Study   *PAPER*

7th International Conference on Advanced Technologies (ICAT'18)   *2018*

B. Ozcakmak, A. Kapkic, B. Bagiroz, A. Koc, U. Yavanoglu

An Analysis on Wireless Network Device Access Security and Awareness: Case Study of Ankara   *PAPER*

3RD INTERNATIONAL SYMPOSIUM ON DIGITAL FORENSICS AND SECURITY (ISDFS 2015)   *2015*

U. Yavanoglu, A. Kapkic, S. T. Yagci, C. Aktepe, G. Tuncer

Workshop and Abstract Publications

Cyber Threats, Cyber Awareness   *ORAL*

WORKSHOP ON NUMERICAL COMMUNICATION TECHNIQUES AND TECHNOLOGICAL DEVELOPMENTS IN COMMUNICATION
SYSTEMS IN FIGHTING FOREST FIRES   *2019*

A. Kapkic, G. Acikgoz

Mobile Devices and Cyber Security Awareness   *ORAL*

INTERNATIONAL CONFERENCE ON INFORMATION SECURITY AND CRYPTOLOGY (ISCTurkey 2017)   *2017*

A. Kapkic, G. Acikgoz

Other Publications

**Using Big Data Analytics and Artificial Intelligence Models to Analyze Cloud File System
Records (In Turkish)**   *Book Chapter*

YAPAY ZEKÂ VE BÜYÜK VERİ KITAP SERISI 3 (EN: ARTIFICIAL INTELLIGENCE AND BIG DATA BOOK SERIES 3)   *2021*

A. Kapkic, Y. Tulgar, S. Sagiroglu (ISBN: 978-625-417-313-4)

Translations   *Translator*

ISACA   *2019-2021*

- CISA Review Manual, 27th Edition (Turkish), ISBN: 978-1-60420-855-9
- COBIT Focus Area: Information Security (Turkish), ISBN: 978-1-60420-851-1
- COBIT 2019 Design Guide: Designing an Information and Technology Governance Solution (Turkish), ISBN 978-1-60420-809-2
- COBIT 2019 Framework: Introduction and Methodology (Turkish), ISBN: 978-1-60420-807-8
- COBIT 2019 Implementation Guide (Turkish), ISBN: 978-1-60420-810-8
- Implementing the NIST Cybersecurity Framework Using COBIT 2019 (Turkish), ISBN: 978-1-60420-821-4

Notable Projects

Big Data Analytics on Cloud File Systems; Case Analysis on File Access Dates

GROUP LEAD   *Jan 2018 - Sep 2018*

In a collaboration between a cloud storage provider company and Gazi University, I led the student team to analyze the cloud logs to improve cloud system performance. To predict usage and detect anomalies in the cloud files, utilized Java and Spark in a Hadoop environment to apply different regression and scaling on millions of cloud file logs. As the result, we have determined and provided several key aspects, regression trees, and an output with predicted actions for the data orchestrator. This project also has been awarded a monetary grant and accepted to the district exhibitions regarding data science on separate occasions from the country's most prestigious scientific institution, TUBITAK; and became an international finalist at Dell EMC Envision the Future competition.

MailHandler Stack

-   *Jan 2015 - Actively Maintaining*

Wrote a fully automated mail handler. Automates received mails with special actions, edits (CRUD+) and maintains separate mail lists; schedules and sends mail to these lists using AWS and GMail API's (Full stack: Java, C, PHP, SQL, Git, Jenkins). Currently adding GPT-3 support to further improve reply functions. This project is actively being used by several colleges, professors and IEEE Conferences, most recently ISCTurkey 2021 and UBMK 2021.

Honors & Activities

Honors

Top 500 OpenAI Codex Challenge (2021).
Finalist Dell EMC Envision the Future Competition (2019).
District Finalist 2242 Undergraduate Project Competition in Prioritized Domain,Scientific and Technological Research Council of Turkey (2018).
Top 5 Gazi CTF (2018).
Finalist Fight4J Java Programming Contest (2016).
Top 20 HackingWars CTF (2016).
Outstanding Achievement Award DKHOCTF (2016).

Awards

Scholarship Read. RECreate. Reward Scholarship, Youngstown State University (2020).
Scholarship Graduate College Premiere Scholarship, Youngstown State University (2019 and 2020).
Grant 2209-B Industry Oriented Undergraduate Thesis Support Program ,Scientific and Technological Research Council of Turkey (2018).

Activities

Student Volunteer WSDM22, 15th ACM International Conference on Web Search and Data Mining Conference, (Virtual, 2022).
Organizing Committee Member 12th International Conference on Information Security and Cryptology, (Ankara, Turkey, 2019).
Speaker International Child and Information Safety Congress "Digital Games", (Ankara, Turkey, 2018).
Organizing Committee Member 12th International Workshop on Industry and Computer Security, (Eskisehir, Turkey, 2017).
Organizing Committee Member Big Data Analytics, Security and Privacy Workshop, (Ankara, Turkey, 2016).

Patents

Measuring Long Distances in Outdoor Environments Using Mobile Devices and Determining the Accuracy of a Shared Status
TURKISH PATENT APP. 2018/20111
S. Sagiroglu, A. Kapkic

Issued

2018

Technical Skills

Programming Python, Java, C, SQL
ML Frameworks PyTorch, TensorFlow, CUDA, Spark, Hadoop
Others Linux, Docker, GPT3, IPythonNotebook, Google Colab, Git, Github, AWS S3, AWS EC2, LaTeX