Ethem Tunal Hamzaoğlu

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EDUCATION

Sabancı University İstanbul, Turkey
Master of Science in Cybersecurity; GPA: 3.72 *Sep 2019 – Jan 2022*

Sabancı University İstanbul, Turkey
Bachelor of Science in Computer Sciences and Engineering; GPA: 3.03 *Sep 2014 – May 2019*

EXPERIENCE

Sabancı University İstanbul, Turkey
Teaching Assistant *Jan 2019 - Aug 2021*

- **Introduction to Computing**: Teaching C++ to undergraduate students.
- **Computational Approaches to Problem Solving**: Teaching Python to undergraduate students and prepared course material and homeworks.
- **Advanced Programming** : Teaching C++ to undergraduate students and prepared course material and homeworks.

Buck.ai San Francisco, CA
Software Developer Intern *Sep 2020 - Jan 2021*

- **Chat-bot**: Generating customized Chat-bots for conversational interactive text response using RASA backend.
- **NLP**: Using pre-trained T5 model to generate paraphrased text for any given text.
- **Twilio**: Using Twilio infrastructure for sending and receiving SMS and real-time phone number generation.
- **Web Application**: Django based web application for users to upload their own data and generate their customised chat-bots and activate their chat-bot for SMS conversations.

Softtech İstanbul, Turkey
Software Developer Intern *Jun 2018 - Aug 2018*

- **Web Application**: Flask based web application for using machine learning models to query loan approval. Worked with API team under infrastructure department.

Wiratell LLC. Ankara, Turkey
Testing Intern *Jan 2018 - Feb 2018*

- **Testing**: Determination of test cases for a mobile application project for both IOS and Android.

LOGO Yazılım Ankara, Turkey
Orientation Intern *Jan 2017 - Feb 2017*

- **Orientation for Software Development**: Gained experience about agile project management in double-centered company and cooperating with colleagues located in different cities and countries.

PROJECTS

- **Visualising Malicious Activity Related Bitcoin Wallets**: Web-based tool for visualising malicious activity related Bitcoin wallets with graph representation by using d3.js framework.
- **Respondr**: Web-based application for creation of modified chat-bots for conversational interactive text response using RASA and Twilio SMS infrastructure.
- **Secure Client-Server Application with Hash Chains and Re-keying Features**: Secure client-server application with hash chains and re-keying features by using C#.
- **Offline Signature Verification from Documents**: Developing deep learning models for offline signature verification using one-shot learning with Siamese Networks
- **Detection of Propaganda Techniques in News Articles**: Developing deep learning models for detection of propaganda in news articles.
- **Secure Message Broadcast Application**: Client-server application for establishing a secure and authenticated message broadcast mechanism by using C#.
- **Implementing Cryptographic Primitives for BlockChain**: Implementing primitive algorithms and proof of work algorithm by using Elliptic Curve Digital Signature Algorithm for BlockChain.

- **Threat Hunting with Using HTTP Header Information**: Detecting malicious activities and threat hunting by using http header information with the machine learning algorithms in corporate networks under the supervision of Prof. Albert Levi and Kuveyt Türk Katılım Bank.
- **Online Loan Query System**: Developing machine learning model to query loan approval from a web-based application under the supervision of İş Bank.
- **DRisk: A Dynamically Configurable Risk Game**: Developing authentication backend for online web-based Risk Board game.
- **Understanding Bitcoin Market**: Making predictions about the Bitcoin market by machine learning methods and back testing of the Bitcoin market by using historical data.
- **Multiplayer Guessing Game**: Client-server application with multiplayer guessing game with socket programming.
- **Basic CRM**: Developing entity relationship and database interface for basic web-based CRM application by using PHP.

Programming Skills

- **Languages**: Python, C++, C#, HTML, CSS, Javascript, LaTeX

- **Frameworks**: Django, Flask, Pandas, SciKitLearn, TensorFlow

Achievements & Awards

- **Declaration of honor and high honor**: In dean's honor list.

Volunteer Experiences

- **AIESEC**   Buenos Aires, Argentina
  Volunteer   *Aug 2017 - Sep 2017*
  - **English Teacher**: Worked as a volunteer English teacher in Buenos Aires for 6 weeks.

- **Civic Involvement Project**   İstanbul, Turkey
  Volunteer   *Jan 2015 - May 2015*
  - **Teacher**: Worked on a project aimed to encourage primary school students with limited opportunities to have college education.