Unat Tekşen

Istanbul, Turkey

✉ unatteksen@gmail.com   🔗 http://unatteksen.com

in linkedin.com/in/unatteksen   ⌗ github.com/robuno   🎓 Google Scholar

Education

Kadir Has University   **2018 − 2023 (expected)**
Bachelor of Science in Computer Engineering, Full Scholarship   *Istanbul, Turkey*
GPA: 4.0/4.0

Experience

Koç University   **June 2022 − Present**
Research Intern   *Istanbul, Turkey*

- Working at <u>Koç University Cryptography, Security, and Privacy Research Group</u> as an undergraduate researcher.
- **Supervisors:** Assoc. Prof. Alptekin Küpçü, Asst. Prof. Ercüment Çiçek
- Working on implementation of novel defensive mechanisms against attacks in privacy-preserving machine learning systems. Specifically, working with split learning.
- Implemented anomaly detection models to detect and mitigate the impacts of a specific attack in a distributed and private deep learning model. Contributing as a co-author for a <u>paper</u> which is under peer-review.
- *PyTorch, scikit-learn, NumPy, Pandas and, Matplotlib are used throughout the project.*

ASELSAN   **June 2022 − July 2022**
Software Engineering Intern   *Ankara, Turkey*

- Worked at *Department of Avionics Software* which is responsible for designing and developing graphical user interface for aircraft.
- Developed an interface for unit test which is integrated with GUI of the specific aircraft. Developed for acknowledging aircraft's protocol commands.
- *C/C# are used throughout the project.*

Kadir Has University   **Nov. 2021 − June 2022**
Research Intern   *Istanbul, Turkey*

- Worked on dimension reduction methods and graph-based manifold learning algorithms for open-source Sca-ML project. *"Developing a New Method Based on Eigenvalue Distribution Slicing and Contour Integral for Manifold Learning and Analysis of Big Data"* project is supervised by Asst. Prof. E. Fatih Yetkin.
- Implemented PETSc/SLEPc libraries and functions for the solution of eigenvalue problems in dimension reduction methods: *PCA, SVD.*
- *scikit-learn, NumPy, Pandas, SciPy, PETSc/SLEPc, Matplotlib and, Plotly are used throughout the project.*

Argenova   **June. 2021 − July 2021**
Software Engineering Intern   *Kocaeli, Turkey*

- Developed a content management system for company's blog and project pages.
- *PHP, JavaScript, jQuery, MySQL, and, CSS are used throughout the project.*

Preprints

1. Ege Erdogan, **Unat Teksen**, M. Salih Celiktenyildiz, Alptekin Kupcu, A. Ercument Cicek. **"Defense Mechanisms Against Training-Hijacking Attacks in Split Learning"**, 2023; <u>arXiv:2302.08618</u>.

   - This paper is **under peer-review** for a journal.

Honor & Awards

Bachelor's Degree Scholarship   **Sept. 2018–2023**
- Merit-based scholarship for undergraduate education.

Top Ranked Student in Engineering & Natural Sciences (7 Semesters)   **Jan. 2022**
- Highest ranked student among the students in faculty of Engineering & Natural Sciences for 7 semesters.

TÜBİTAK Star Scholarship for Undergraduate Research Project   **Dec. 2021–June 2022**
- Selected by TÜBİTAK (Scientific and Technological Research Council of Turkey) and coordinators of the "Scalable Manifold Learning" research project as an undergraduate scholar for 6 months.

Projects

Skin Lesion Classifier | *PyTorch, scikit-learn, NumPy, Matplotlib, PIL*
- Implementation of most popular convolutional neural networks (CNN) to classify and detect skin cancer with data augmentation methods.
  Github repository: https://github.com/robuno/skin-disease-classifiers

Personal Blog Management System for Academics | *PHP, MySQL, JavaScript, BootStrap, CSS*
- An easy-to-use content management system with modules to meet all the needs of academics and researchers.
  Github repository: https://github.com/robuno/academics-blog-cms

Instagram Follower & Following List Scraper | *Python, Selenium, Web Driver Manager*
- Creates a list of followers and followings with the current time.
  Github repository: https://github.com/robuno/instagram-follower-following-scraper

Certificates & Courses

Improving Deep Neural Networks: Hyperparameter Tuning, Regularization and Optimization | *Credential*
- Issued by DeepLearning.AI & Coursera

Neural Networks and Deep Learning | *Credential*
- Issued by DeepLearning.AI & Coursera

CCNA: Introduction to Networks | *Credential*
- Issued by Cisco

Machine Learning by Stanford University | *Credential*
- Andrew Ng's ML Course using Matlab, Octave

Skills & Technical Strengths

Human Languages: Turkish *(nature)*, English *(fluent)*, Italian *(elementary)*
Programming Languages: Python, Java, JavaScript, C/C#, PHP, Matlab, CSS
Frameworks/Libraries
    Machine Learning/Data Science: PyTorch, scikit-learn, NumPy, Pandas, Matplotlib
    Web Development: jQuery, React, Bootstrap
Other Technologies/Databases: MySQL, Tkinter, Swing
Typesetting: LaTeX

Activities

Social Media Content Creator & Designer
Kadir Has University Social Support & Solidarity Community
- Designing and creating content specific to regular announcements and events for social media platforms. Volunteering in the organization of charity events

Updated on February 24, 2023