

ALPEREN GORMEZ

agorme2@uic.edu | linkedin.com/in/alperengormez | github.com/alperengormez | alperengormez.github.io

EDUCATION

University of Illinois at Chicago

Ph.D. Electrical and Computer Engineering

Chicago, IL

Aug 2019 – Present (2024)

- **Cumulative GPA: 4.0 / 4.0**

- Relevant Coursework: DeepMind Advanced Deep Learning & Reinforcement Learning, Neural Networks, Machine Learning, Algorithms, Convex Optimization, Image Analysis and Computer Vision, Digital Signal Processing, Statistical Digital Processing, Digital Speech Processing, Adaptive Digital Filters, Random Signal Analysis, Digital Communications

Bilkent University

B.S. Electrical and Electronics Engineering

Ankara, TURKEY

Aug 2015 – June 2019

- Relevant Coursework: Statistical Learning and Data Analytics, Neural Networks, Artificial Intelligence, Digital Signal Processing, Fundamental Structures of Computer Science, Probability and Statistics, Linear Algebra & Differential Equations

RESEARCH EXPERIENCE

University of Illinois at Chicago

Research Assistant

Chicago, IL

Aug 2019 – Present

- Working on early exit neural networks, adaptive inference and model compression with Prof. Erdem Koyuncu to decrease the computational cost of deep learning systems while preserving the performance
- Experimenting on efficient distributed neural network training
- Evaluating different approaches such as knowledge distillation and conditional computation using PyTorch

Nagoya University

Research Student

Aichi, JAPAN

May – July 2018

- Conducted research about pattern recognition and anomaly detection under the supervision of Prof. Kenji Mase

PUBLICATIONS

1. **A. Gormez**, V. Dasari, E. Koyuncu, "E2CM: Early exit via class means for efficient supervised and unsupervised learning," IEEE World Congress on Computational Intelligence (WCCI): International Joint Conference on Neural Networks (IJCNN), July 2022.

WORK EXPERIENCE

Roku

Machine Learning Intern

San Jose, CA

May 2021 – Aug 2021

- Worked on reducing the inference time of a deep learning model using Apache Spark and TFX in the Advertising Engineering team

University of Illinois at Chicago

Teaching Assistant

Chicago, IL

Aug 2019 – May 2021

- Taught signal processing in MATLAB in the laboratory sessions of the Digital Signal Processing I course (Fall '19 and Spring '20)
- Helped undergraduate students with MATLAB in the Communication Engineering course (Fall '20 and Spring '21)

Deep Learning Indaba

Mentor

Chicago, IL

Jan 2021 – Present

- Voluntarily mentoring a student to support machine learning and artificial intelligence in Africa

ASELSAN

Candidate Engineer

Ankara, TURKEY

Feb – May 2019

- Built neural networks in TensorFlow and classified the sounds received by a passive sonar
- Worked on the visualization of the data collected by ultrasonic sensors
- Implemented sonar signal processing algorithms for the acoustics signal processing department

Argela

Computer Networks Intern

Ankara, TURKEY

Jan – Feb 2018

- Wrote Python programs in Linux for transferring files automatically between servers
- Contributed to the DSL-LTE Bonding Project by writing small Python scripts to monitor the internet speeds of customers
- Led the team in automated testing processes using Robot Framework

Lumos Laser

Embedded Systems Intern

Ankara, TURKEY

June – July 2017

- Optimized and simulated the data transfer between a computer and an FPGA of a fiber laser system

SKILLS & INTERESTS

- **Languages/Technologies:** Proficient in Python, MATLAB, C; familiar with Java, C++, Julia. Experienced with Linux, Anaconda, PyTorch, TensorFlow, TensorFlow Extended (TFX), Apache Spark, NumPy
- **Interests:** Chess, Formula 1 (damalibayrak.com), keyboard (musical instrument), paragliding, neural networks

HONORS & AWARDS

- **Bilkent University Honor Student** – High academic standing *2015-2019*
- **Bilkent University Comprehensive Scholarship** – Full tuition waiver and stipend during the B.S. program *2015-2019*
- **LYS Degree** – Ranked 341st in Turkey's National University Entrance Exam among over 2 million students *2015*