

Berkay Barlas

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Education

Koc University

B.S. COMPUTER ENGINEERING

Istanbul, Turkey

Oct. 2016 - Exp. May. 2021

Koc University

B.S. ELECTRONICS ENGINEERING DOUBLE MAJOR

Istanbul, Turkey

Oct. 2015 - Exp. May. 2020

- **GPA 3.80 / 4.00** | Received 100% scholarship which is given to **top 300(0.01%)** among 2 million students in National University Exam.
- **Coursework:** Algorithms & Complexity, Parallel Programming, Machine Learning (Python), Database Systems

Technical University of Munich (TUM)

Munich, Germany

EXCHANGE STUDENT WITH ERASMUS SCHOLARSHIP

Apr. 2020 - Sept. 2020

Nanyang Technological University (NTU)

Singapore

EXCHANGE STUDENT WITH FULL-SCHOLARSHIP

Aug. 2019 - Dec. 2019

Research & Teaching Experience

Koc University

Istanbul, Turkey

ADVISOR: PROF. ÖZNUR ÖZKASAP

Jan. 2019 - Jun. 2020

- Built and deployed overall Internet of Things(IoT) project with Raspberry pi, camera, temperature and weight sensors.

Stanford – Koc University CS Bridge Program

TEACHING ASSISTANT

Summer 2017-Summer 2018

- Was section leader of a Java teaching program directed by Nick McKeown who has taught computer science at Stanford for 20 years.
- Was responsible for preparing and grading assignments, conducting problem solving sections, helping students during lab-hours and giving feedbacks to daily assignments.

Koc University

Istanbul, Turkey

ADVISOR: PROF. M. CENGİZ ONBASLI

Oct. 2017 - May. 2018

- Built and deployed overall Internet of Things(IoT) project with Raspberry pi, camera, temperature and weight sensors.
- Developed native mobile application for Android.
- Used machine learning algorithm for food recognition and several AWS stack including Rekognition, S3, Dynamodb, Lambda.
- Conducted penetration testing commissioned by national agency and corporation.

Koc University, Arcelik Research Center for Creative Industries

Istanbul, Turkey

ADVISOR: PROF. OGUZ TURAN BURUK

Oct. 2016 - Oct. 2017

- Worked on a research about applications of wearable technologies in gamification and prototyped a hand controller with Arduino and 3D Printing.

Course Projects

Multithreaded Game with Network

PARALLEL PROGRAMMING MASTER COURSE PROJECT

Jan. 2019 - Jun. 2019

- Implemented 3 versions of cardiac electrophysiology simulator that uses MPI, OpenMP and Nvidia CUDA.
- Optimized multi-core GPU performances of MPI, OpenMP and Nvidia CUDA versions and prepared performance comparison report on different input scales.

Multithreaded Game with Network

SOFTWARE ENGINEERING COURSE PROJECT

Oct. 2018 - Jan. 2019

- Developed an online game based on Ultimate Monopoly board game with a team of 5 people and acted as a team leader.
- Designed Network and Thread related parts of project and applied GoF design patterns.

Skills

Programming Languages

Java, Python, Matlab, JavaScript, C / C++

Coursework

Algorithms and Data Structures, Software Engineering, Advanced Programming, Structure and Interpretation of Programs, Teaching Computer Science,

Languages

English (Advanced), Turkish (Native)

Work & Internship Experience

Vagon.io

Remote

FULL-STACK SOFTWARE DEVELOPER

7+ Months | Mar. 2020 - Present

- Working on Web and back-end applications using **React, Ruby on Rails, PostgreSQL, AWS, Docker**.
- Improved live streaming service performance by **30%** using websocket connection and browser decoder APIs.
- Increased fraud detection, prevention methods and changed payment systems. Monthly fraud cases decreased by **80%**.

Mozilla / Firefox Devtools

Remote

OPEN SOURCE CONTRIBUTOR

3 Months | Jan. 2020 - Mar.

2020

- Worked on **Firefox** projects, mainly on **Firefox Devtools**. Solved and reported issues on **Github** and **Bugzilla(Phabricator)**.
- Created previewer that shows the visual content of website in timeline for performance recording tool Firefox Profiler.
- Reworked Firefox reader mode design and integrated reader specific buttons to work with browser settings.

Zeplin.io

San Francisco, CA & Istanbul

SOFTWARE DEVELOPER INTERN

3 Months | Jun. 2019 - Aug. 2019

- Worked on **React Web and Electron Windows** applications and developed components that are used across all application.
- Migrated Profile Pages(Account settings, Billing, Subscriptions) to **React JS** from vanilla **Javascript, HTML, CSS**.
- Reduced code redundancy around **30%** in Profile Pages and increased loading speed around **10%**.

Trendyol.com

Istanbul, Turkey

SOFTWARE DEVELOPER INTERN

5 Months | Jul. 2018 - Dec. 2018

- Developed web services for seller interface of e-commerce application using **Java Spring Boot, REST API, RabbitMQ**.
- Implemented new microservice features to Seller Portal that are used for adding and tracking products in marketplace.

Trendyol.com

Istanbul, Turkey

SOFTWARE DEVELOPER INTERN

July. 2018 - Dec. 2018

- Developing web services using **REST API, Java Spring Boot, RabbitMQ**.
- Implementing new features and microservices to Supplier and Admin Portal.

Extracurricular Activity

Stanford d.school | University Innovation Fellows (UIF)

Stanford University, California

UNIVERSITY INNOVATION FELLOW

Oct. 2019 - Present

- Concluded a 7 week-long design thinking, innovation, and entrepreneurship online education.
- Created an orientation program with faculty that aims to give new student a better overview of university.

Global Learning and Leadership Program

Koc University

COFOUNDER OF KOC UNIVERSITY MAKERSPACE LAB

Sept. 2016 - Nov. 2019

- Funded by engineering faculty to design the space and chose the required tools after one year of pivot project.
- Coordinated team members and arranged workshops about computer science, creative skills, and social innovation.
- In Spring 2019, **40%** of all senior engineering projects developed in fully student driven Makerspace.

AIESEC

Cairo, Egypt

GLOBAL VOLUNTEER IN EGYPT

Summer 2015

- Was a member of an international team of 30 people which was responsible from building a school from throw-out materials in a poor island in Egypt.

Honors & Awards

- 2019 **Pixery Hackathon'19 Best Project Award**, Ranked **1st** among preselected 12 teams
- 2019 **Ciceksepeti Hackathon'19 Best Project Award**, Ranked **1st** among preselected 30 teams
- 2018 **Zeplin Hackathon Special Jury Award**, Awarded as most enthusiastic team to learn new concepts and tools
- 2015 **Ranked 273th among more than 2 million Students**, Turkish University Attainment Exam
- 2011 **Ranked 1th among more than 1 million Students**, Turkish High School Attainment Exam