

# Furkan K. Yildirim

COMPUTER SCIENCE & INDUSTRIAL ENGINEERING · JUNIOR STUDENT

Orta Mah. Üniversite Cd. Sabancı Üniversitesi, Tuzla/İstanbul

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*"Be a yardstick of quality. Some people aren't used to an environment where excellence is expected."*

## Education

### Double Major SABANCI UNIVERSITY

İstanbul, Turkey

B.S. IN COMPUTER SCIENCE & INDUSTRIAL ENGINEERING (DOUBLE MAJOR) - BUSINESS ANALYTICS (MINOR)

Sep. 2019 - Expected: Jun. 2024

- **Computer Science Featured Courses:** Data Structures & Algorithms, Software Engineering, Operating Systems, Database Systems, Network Systems, Mobile Application Development, Intr. to Data Analysis, Machine Learning, Logic & Digital System Design.
- **Industrial Engineering Featured Courses:** Operation Research, Simulations, Decision Economics, Information Systems.

## Skills

**Soft Skills** Communication, Teamwork, Leadership, Problem-solving, Attention to Detail

**Front-end** Flutter, React Native, HTML5, CSS

**Back-end** Flask, FastAPI, REST API, Firebase

**Programming** Python, C++, C#, JavaScript, Dart, SQL, Verilog, Rockwell Arena

**Other** Discrete Event Simulation, Vehicle Routing Problems, Mobile Application Development, Web Development, Agile Software Development, Object Oriented Programming, Web crawling, MySQL, PostgreSQL MongoDB, Redis, Git, Jira, Miro, Docker

**Languages** Turkish (Native), English (C1)

## Professional Experience

### Getir Online Market

İstanbul, Turkey

ALGORITHM DEVELOPER INTERN

Apr. 2022 - Present

- Working on optimization test and run-time performances of OSRM and VROOM results with Discrete Event Simulation on Getir Market platform using Prefect and Python libraries Typer, FastAPI, Numpy and Pandas.
- Working on visualizing data results from VROOM, OSRM and New Relic on the Getir Market platform using Python.
- Developing unit tests, developing integration tests and refactoring code-bases for micro-services of the Getir Market platform using Python.

### Sabancı University

İstanbul, Turkey

LEARNING & TEACHING ASSISTANT

Oct. 2021 - Jun. 2022

- Assisted Instructor Gülşen Demiröz on Data Structures Course, gave homework, graded, and helped students on assignments, also held weekly office hours.
- Assisted students with their Python learning through weekly recitation sessions in the Computational Approaching to Problem Solving Course.
- Under the supervision of Prof. İnanç Arın, extracted Turkish texts from PDF images using Python and certain APIs with Sabancı University Center of Excellence in Data Analytics.

### CRS Software

İstanbul, Turkey

SOFTWARE ENGINEER INTERN

Jan. 2022 - Feb. 2022

- Created and developed an e-commerce platform with .NET using C# language during the internship.

### Hyperlink Digital Library

İstanbul, Turkey

SOFTWARE ENGINEER

Jun. 2021 - Jan. 2022

- Developed a cross-platform mobile application of an e-Book Library with Flutter. Deployed at **Google Play Store** and **App Store** on January'22.
- Helped develop Semantic Search API in an e-Book Library with Python Flask, Redis and MySQL.

## Projects

### Delivery Route Optimization at E-Bebek Company

TEAM LEADER - ALGORITHM & BACK-END DEVELOPER

- Under the supervision of Prof. Dr. Bülent Çatay for graduation project, developing an algorithm that, deal with VRP variant that matches orders with the delivery vehicles in E-Bebek Company and determines the vehicle routes, with Python.
- Creating a service that manages the database using PostgreSQL, returns the results of the determined problem using the developed algorithm, FastAPI, Vehicle Routing Open-source Routing Machine (VROOM) and Open Source Routing Machine (OSRM), and visualizes the given output.

## Voidture E-Commerce Platform

LEAD MOBILE APPLICATION DEVELOPER & BACK-END DEVELOPER

- Developed an e-commerce mobile application for Furniture using Flutter and led the mobile application team.
- Took part in the demo presentation of the application. Used Jira and Bitbucket to maintain the project.
- Worked on the service development part of the application using FastAPI, PostgreSQL, Redis and Docker.

## Analyzing Prerequisites of Courses of Sabancı University

ALGORITHM & BACK-END DEVELOPER

- Under the supervision of Prof. Dr. Hüsni Yenigün, developed an algorithm and a script with Python to collect and analyze the prerequisites of Sabancı University courses.
- Visualized the analyzed data using JavaScript and Python Flask. Published source code of the project on **GitHub** and deployed at **Heroku**.

## SUchedule Mobile Application

FULL-STACK DEVELOPER

- Developed a mobile application (SUchedule) with React Native, allowing Sabancı University students to create their schedules with a friendly user interface.
- Developed the back-end service of this application with Python Flask and published source code of backend service on **GitHub**.
- Published source code of the project on **GitHub** and deployed at **Google Play Store** and **App Store**. Reached 2000+ downloads.

## WakeGuard, Location Based Alarm Application

MOBILE APPLICATION DEVELOPER

- Created location tracking and alarm application with React Native and Firebase named WakeGuard and leading the project.
- Published source code of the project on **GitHub** and deployed at **Google Play Store** and **App Store**. Reached 1000+ downloads.

## Digital Business Card Mobile Application

FULL-STACK DEVELOPER

- Created, developed, operating, and deploying a stand-alone business card web and mobile application where users can keep and share all their social media accounts with Python Flask and React Native using QR Code and NFC technologies.

## FlixWatcher Database Project

WEB CRAWLING, DATABASE DEVELOPER

- Created a MySQL database of movies and TV shows that will be removed from Netflix in the near future and a linked website to process the database entries. Used Python Request and BeautifulSoup to gather movie and TV show data from some websites and led the project.

## Taxi Booking Mobile Application

MOBILE APPLICATION DEVELOPER TEAM LEADER OF PROJECT

- Led the project for developing a taxi reservation application with React Native such as Uber and Bitaksi for Alo Crash Damage Assessment Solution Partnership and Consulting Services Company.

## Competitions & Honors

### COMPETITIONS

- |      |   |                    |
|------|---|--------------------|
| 2022 | <b>ITU ACM Algocomp'22</b> , Ranked 15th with my team among 300+ teams in the competition which is an algorithm-based coding competition.                                       | <i>Turkey-Wide</i> |
| 2021 | <b>Inzva Hackerspace</b> , Ranked 1st at Sabancı University and 9th on overall with my team among 200+ teams in the competition which is an algorithm-based coding competition. | <i>Turkey-Wide</i> |

### HONORS

- |      |  |                    |
|------|--|--------------------|
| 2022 | <b>Sakıp Sabancı %100 Encouragement Scholarship</b> , Awarded for academic achievement   | <i>Turkey-Wide</i> |
| 2022 | <b>Dean's High Honor List</b> , Achieving grade more than 3.5 over 4.0.  | <i>Turkey-Wide</i> |
| 2021 | <b>Dean's High Honor List</b> , Achieving grade more than 3.5 over 4.0.  | <i>Turkey-Wide</i> |
| 2019 | <b>High Success Scholarship</b> , Ranked 1365th among 1,500,000+ students (0.09 percentile) in National University Entrance Exam (YKS 2019). | <i>Turkey-Wide</i> |

## References

### Gülşen Demiröz

INSTRUCTOR AT SABANCI UNIVERSITY

- Faculty of Engineering and Natural Sciences - Sabancı University, FENS Building, Office L015
- **Phone:** +90 (532) 585 61 50
- **Email:** gulsen.demiroz@sabanciuniv.edu
- **Relationship:** I was her Teaching Assistant in the CS300 Data Structures Course she lectured.