MERT BILDIRICI

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EDUCATION

Duke University, Trinity College of Liberal Arts and Sciences, Durham, NC ***2022-2026***

Bachelor of Science in Computer Science and Statistics | GPA: 3.96

- Coursework: Data Structures & Algorithms, Data Science, Computer Systems, Programming Interview, Linear Algebra, Machine Learning, Database Systems, Regression Analysis
- Activities / Societies: Duke Applied Machine Learning Group, Wayne Manor, Club Volleyball, Sports Analytics Club

WORK EXPERIENCE

Software Development Intern, Recly, Remote ***05/2023 – 08/2023***

- Fixed bugs regarding event creation in the Recly app, an app that aims to connect workout partners.
- Added features and fixed the bugs in the Messages section.
- Collaborated with the product and design teams to brainstorm and prototype new features.
- Designed and implemented software features that improved the user experience and functionality of the app.

Software Engineering Intern, Valensas Technologies, Istanbul, Turkey ***05/2023 – 08/2023***

- Developed a mobile application for PayPro that allows users to make purchases and expenses using a pre-authorized payment method, even in areas with limited internet connectivity.
- Contributed to the development of a web-based interface for PayPro that enables users to manage their expenses and view transaction history.
- Wrote and implemented unit tests for the pre-authorization functionality within payment systems for in-flight purchases.
- Implemented the use of Multipeer Connectivity Framework to enable connectivity and transaction history synchronization for flight attendants across all devices within the app.
- Created the login page for the application on both web and iOS platforms including UI design and user authentication.

Machine Learning Engineer, Duke Applied Machine Learning Group, Durham, NC **02/*2023 - Present***

- Working for the project AMP®-Parkinson's Disease Progression Prediction.
- Developed a predictive model for MDS-UPDR scores, which measures the progression of Parkinson's disease.
- Employed machine learning algorithms to analyze and interpret the data, including supervised and unsupervised learning techniques.
- Utilized Python and libraries such as Scikit-learn, Pandas, and NumPy for data processing and model development.

Data Analyst Intern, Ataol Group, Remote ***10/2022 – 05/2023***

- Conducted software research and provided benefit reports on platforms the company wants to use.
- Organized software partnership meetings for company leadership.
- Wrote weekly data articles for the company's social media.

PROJECTS

- **Snake | JavaScript |** Designed and developed the classic Snake game using HTML and JavaScript, implementing user controls, scorekeeping functionality, and dynamic rendering of game elements for an engaging user experience.
- **DinoGame | Python |** Utilized computer vision techniques and libraries to detect and track hand movements, enabling users to play the Google Dino game by simply moving their hands, without requiring any keyboard inputs.
- **Route | Java |** Built a program creating routes between two cities using breadth first search approach and Dijkstra's algorithm.
- **Autocomplete | Java |** Developed an autocomplete tool by using weighted prefixes and implementing binary search.
- **Markov | Java |** Built a Markov process utilizing HashMaps to optimize random text generation using a training text.
- **Huffman Compression | Java |** Built a program to compress and decompress files using Huffman coding algorithms.
- **Store | C |** Created a custom data representation of aisles and shelves in a store using bit manipulation and type casting.

RESEARCH & PUBLICATIONS

Researcher & Author, Acibadem Maslak Hospital ***2020-2022***

- Published "Immersive VR on childbirth experience for women" in the BMC Pregnancy and Childbirth magazine.
- Studied how VR technology could be used in healthcare and surveyed patients before & after the usage of VR headset.
- Helped the patients with the VR headset and surveyed them to find patient satisfaction and stress reduction.
- Received the Scientific and Technological Research Council of Turkey Monetary Award.

SKILLS

Skills & Languages: Java, C, R, ReactNative, TypeScript, Data Analysis, HTML/CSS, JavaScript, App Development, Turkish