

Mert Bildirici

919-433-6434 | hmb45@duke.edu | mertbildirici.com | [LinkedIn](#)

EDUCATION

Duke University

Bachelor's of Science: Computer Science | Concentration: Machine Learning | GPA: 3.96

Durham, NC

Graduation: May 2026

SKILLS

Programming Languages: Python, Java, React, Kotlin, SQL, R, C, JavaScript, TypeScript, HTML5/CSS, Swift

Tools: NumPy, Pandas, TensorFlow, PyTorch, OpenAI, StreamLit, Snowflake, Docker, AWS, Agile/Scrum, Flask, Postman

Relevant Coursework: Data Structures & Algorithms, Databases, Linear Regression, Linear Algebra, Computer Systems, Everything Data, Intro to Coding Interviews, Introduction to Machine Learning

WORK EXPERIENCE

Duke University | *Mobile Application Developer* | Durham, NC

August 2023 – Present

- Designed, built, and deployed a cross-platform app using Java for Android and Swift for iOS, enabling Duke professors to post quizzes online for student review, with 500+ active users.
- Utilized Firebase as the backend to develop a question bank module and integrated a feature to release questions.
- Enabled real-time notifications for students in Android and iOS versions by utilizing Firebase Cloud Messaging (FCM) topic messaging and sending network requests to the server developed using Java and Spring Boot.
- Optimized API calls and reduced the response time by 15%.

Valensas | *Software Engineer Intern* | Istanbul, Turkey

May 2023 – August 2023

- Developed a web application with React for PayPro that allows users to make purchases and expenses using a pre-authorized payment method, even in areas with limited internet connectivity such as flights.
- Developed a web interface for PayPro that enables users to view pre-authorized payments.
- Created an admin panel using React to efficiently manage and monitor flights and transactions.
- Utilized Postman API to perform flight-related tasks, including retrieving flight data through GET requests, creating and terminating flights using POST requests, and initiating provisioning processes for flights.
- Created the login page for the application using React and JavaScript both for the admin panel.
- Leveraged the Multipeer Connectivity Framework to enable transaction history synchronization for flight attendants across all devices within the app.

Recl | *Software Development Intern* | Durham, NC

May 2022 – August 2022

- Developed solutions for critical bugs in Recl, a workout partner connection app written in React.
- Enhanced the Chat section by notifications and improved message synchronization with ReactNative.
- Implemented features that improved the user experience and increased user retention by 40%.
- Spearheaded backend development environment redesign, resulting in an efficient setup which improved development workflow, boosting team productivity by 30%.
- Extended code so users could sign in with international phone numbers, adding 200+ international users.

ACTIVITIES

Duke University | *Teaching Assistant*

August 2023 – Present

Class name: Introduction to Data Science (STATS199)

- Led discussion sections with 25 students, covering course content in R; graded assignments.
- Mentored students and answered questions in weekly office hours and class discussion forums.

Duke Applied Machine Learning | *Machine Learning Engineer*

February 2023 – May 2023

- Developed a predictive model for MDS-UPDRS scores, which measures the progression of Parkinson's disease.
- Employed machine learning algorithms to analyze data, including supervised and unsupervised learning.
- Utilized Python libraries such as Scikit-learn, Pandas, and NumPy for data processing and model development.

PROJECTS

- DinoGame (PyTorch, TensorFlow):** Utilized computer vision techniques to detect hand movements, enabling users to play the Dino game by just moving their hands, with no keyboard input.
- Route (Java):** Program creating routes between two cities using BFS and Dijkstra's algorithm.
- Huffman (Java):** Built a program to compress and decompress files using Huffman algorithms.
- Personal Website (JavaScript & React):** Coded a dynamic & fully functional website for myself: mertbildirici.com
- Autocomplete (Java):** Autocomplete search engine tool by using weighted prefixes and binary search.

AFFILIATIONS & PROGRAMS

Duke Affiliations: Duke Quantitative Finance, Wayne Manor, Blockchain Club, Turkish Students Association, Men's Club Volleyball