Yunus Kocaman

272-201-856 | yunuskocaman@brandeis.edu | linkedin.com/in/yunus | github.com/yunus | yunuskocaman.com

Education

Brandeis University — Waltham, MA
Bachelor of Science in Computer Science — *Aug. 2022 – May 2026*

Coursework:
Data Structures and Algorithms, Object Oriented Programming, Fundamentals of Software Engineering, Operating Systems, Intro to Machine Learning, Intro to Computer Security, Intro to Probability and Statistics, Calculus, Linear Algebra, Discrete Structures, Natural Language Processing, Embedded Systems,

Projects

YumJunction | *JavaScript, CSS, HTML, React, Azure Services, Docker*

- Led a team of students in developing a **full-stack** web recipe app using **React** and **Node.js**, acting as the point of contact with the PM (TA)
- Built a **backend server** to store and manage recipe data, integrating **JSON-based APIs** and **CosmosDB** for scalable storage.
- Designed a dynamic front-end with **React** and **Tailwind CSS**, allowing users to add and share their recipes.
- Implemented **Azure Services** for **cloud** hosting, **automated deployment**, and **monitoring**.
- Set up **alerting mechanisms** for backend services to ensure reliability and performance.
- Utilized **Docker** for containerized deployment, ensuring consistency across development and prod environments.

Unix Shell Simulator | *Java, Multithreading, Concurrency, Thread Synchronization*

- Developed a Unix-like shell with a fully functional Read-Eval-Print Loop (**REPL**) supporting essential **shell commands** (pwd, ls, cd, cat, grep, wc, etc.).
- Implemented the **Pipes** and **Filters** architecture to support command chaining (| operator), enabling seamless data flow between commands.
- Enhanced shell capabilities with error handling, ensuring robust input validation and appropriate system responses for incorrect commands.

Fraud Detection | *Python, Scikit-Learn, Pandas, NumPy, Matplotlib, Seaborn, Imbalanced-learn*

- Explored multiple machine learning models for fraud detection, including **Logistic Regression**, **Decision Trees**, and **K-Nearest Neighbors** (K-NN)
- Engineered and optimized features using imbalanced dataset techniques (**SMOTE**) to improve fraud classification in skewed datasets.
- Implemented a data preprocessing pipeline with **Pandas** and **NumPy**, handling missing values, **feature scaling**, and outlier detection to enhance model performance.
- Visualized dataset distributions and fraud patterns using **Matplotlib** and **Seaborn**, refining feature selection and model interpretability.

Experience

Civic and Community Engagement — Sep. 2022 – Present
Boston Education and Counseling/Youth Coordinator — *Revere, MA*

- **Mentored and Supervised 30+ Students:** Provide weekly academic, social, and spiritual guidance to middle and high school students (grades 6–12), ensuring comprehensive support.
- **Led a team of 7 Mentors:** Manage and mentor a team of seven, equipping them with effective strategies to support student development.
- **Facilitated 15+ Youth Retreats:** Organized and led 7–10 day retreats focused on personal growth, leadership, and mentorship training.

Technical Skills

Languages: Java, Python, C, JavaScript/TypeScript, Swift, SQL
Full Stack Development: React, Next.js, HTML/CSS/Tailwind, Node.js, Flask, JUnit,
Cloud services: CosmosDB, MongoDB, Firebase, AWS, Azure, PostgreSQL, SQLite
Developer Tools: Git, GitHub Docker, Azure Services, Flask, Kali Linux, Scrum, Agile Development, Object-Oriented Programming (OOP)
Libraries: Pandas, NumPy, Matplotlib, Scikit-learn, Bootstrap