

Yunus Kocaman

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| US Citizen |

EDUCATION

Brandeis University

Bachelor of Science in Computer Science

Waltham, MA

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, Computer Networking

EXPERIENCE

Data Engineering Intern

Pioneer Charter School of Science

Everett, MA

Jul. 2025 – Present

- Built a **site-to-site VPN** (**StrongSwan** on **EC2** with **SNAT**) from PowerSchool (Oracle) to **S3**, enabling **daily automated** secure extracts and eliminating manual data pulls.
- Cut **Oracle** query latency from **~30 min** to **<10 s** by rewriting joins/window logic.
- Built **Glue** batch jobs (Python/PySpark) that query **Oracle** via **JDBC** and land results to **S3**; typical runs complete in **<2 min**.
- Replaced redundant scheduled transforms with **Athena** tables/views feeding **QuickSight** dashboards used in **weekly admin reviews**; **daily** refresh.
- Delivered **on-demand analytics** in **SQL/Python** for leadership decisions—student comparisons, cohort tracking, assignment creation, etc.

Youth Coordinator

Boston Education and Counseling

Revere, MA

Sep. 2022 – Present

- Mentored **30+** students, led a **8-person** team, and facilitated **15+** youth retreats.

PROJECTS

MFA Lock | *Python, Flask, JavaScript, HTML, Socket.IO, Raspberry Pi, OpenCV, MicroPython*

- Built a secure smart lock system with **multi-factor authentication**, integrating 5 input methods and real-time access control.
- Programmed the 3.5" **HAT Mini touchscreen UI** for input selection, PIN entry, and authentication feedback.
- Integrated camera, tap, rotary, and audio sensors using **GPIO** and **event-driven logic** for efficient and responsive control.
- Implemented **Socket.IO**-based communication between two Raspberry Pis to coordinate authentication and control a servo-based locking mechanism.
- Developed a **Flask web interface** for user configuration and face registration using **OpenCV**-based facial recognition.

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
- Enhanced shell capabilities with error handling, ensuring robust input validation and appropriate system responses for incorrect commands.

TECHNICAL SKILLS

Languages: Java, Python, C, JavaScript/TypeScript, HTML, SQL

Full Stack Development: React, Next.js, Node.js, CSS/Tailwind, JUnit

Cloud services: CosmosDB, supabase, AWS(S3, Lambda, Athena, Glue, Quicksight, EC2, DMS, VPC), Azure

Developer Tools: Git, GitHub, Docker, Azure Services, Flask, Kali Linux, Scrum, Agile, OOP, NLP, RESTful API, ML, Data Science, Google Sheets

Libraries: Pandas, NumPy, Matplotlib, Scikit-learn, librosa