

Noor Mostafa

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EDUCATION

Carnegie Mellon University, Pittsburgh, PA May 2025
Bachelor of Science in Information Systems, Computer Science Minor, Statistics Minor GPA: 3.95

EXPERIENCE

Amicus Therapeutics, Princeton, NJ June – August 2023

Technical Operations and Business Planning Intern

- Responsible for creating automation to publish the monthly Technical Operations KPI scorecard
- Created UI to easily retrieve reports that combine purchase order and contract data from different sources
- Improved data management to ensure knowledge transfer as the enterprise scales

AdSkate, Remote 2022

Software Development Intern

- Saved data collection time by 75%, improving sales and feeding data to NLP machine learning models, by developing web scraping APIs in Python, gathering data from YouTube and Google Ads
- Built application allowing non-technical users to input search parameters, gather large amounts of csv formatted data, and upload quality assured data to the production database

LEADERSHIP & ACTIVITIES

Students Using Data for Social Good, Pittsburgh, PA 2021 - Present

Director: May 2022 - Present, Data Project Chair: Spring 22

- Grew organization to 30 active students, recruited partner organizations in the Pittsburgh area, managed organization finances, and scoped data science projects solving partners' real problems
- Planned and presented at consistent general body meetings to showcase project updates and setbacks, host guest speakers in the data science industry, and data science hackathons focused on positive social impact

Carnegie Autonomous Racing, Pittsburgh, PA 2021 - 2022

Perceptions Team Member

- Gained working knowledge of deep learning and its implementation by training real-time object detection algorithm on cones dataset for racetrack detection and depth awareness
- Validated results with Python by assessing intersection-over-union of bounding box labels and predictions

PROJECTS

Malloc April 2023

- Built fully functional dynamic memory allocator in C and gained robust understanding of computer memory
- Achieved 74% memory utilization and 7373 KOPS of throughput by iteratively designing and implementing explicit free lists, segregated free lists, removal of allocated block footers, and decrease of minimum block size

Employee Management Application January – May 2023

- Developed using MVC framework with Ruby on Rails and achieved 100% model and controller test coverage
- Features include CRUD operations on shift, store, job, and pay grade assignments, user authentication and employee/manager/admin authorization, payroll calculator, database migrations, and functional front end

eBay Database 2022

- Designed mock relational database for eBay from conceptual model, normalization, to physical model
- Developed Postgres database following physical model and wrote SQL queries involving functions and triggers to fulfill user stories by obtaining information about buyers, sellers, items, and types of listings

Word Game (<https://youtu.be/jTodAQ4lrd0>) 2021

- Applied Python skills to produce an algorithmically complex crossword puzzle game
- Implemented optimized random letter and word generation and recursive backtracking for puzzle layout

RELEVANT COURSEWORK

Data Structures and Algorithms	Application Design and Development
Database Design and Development	Probability and Statistical Inference I, II
Intro to Computer Systems	Designing Human-AI Futures

SKILLS & INTERESTS

Python, C, systems level programming, SQL (Postgres), MongoDB, Ruby on Rails, Git, web development, drummer