MATTIA DANESE

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EDUCATION		
TUFTS UNIVERSITY, Gordon Institute – MS Computer Science – 3.95 GPA		2023
TUFTS UNIVERSITY, School of Engineering – BS Computer Science – 3.72 GPA – MCL		2022

WORK EXPERIENCE

Full Stack Internship @ MassEnergize – *Python (Django), React.js, Git* — 2022
- Used the Google Docs API to implement efficient importing and exporting of user content to the MassEnergize Admin Portal
- Implemented logic to ensure username uniqueness across the MassEnergize Frontend Portal
- Identified stale stored media and implemented a monthly cron function to delete such media

Full Stack Internship @ WAISN – *Python (Django), React.js, Git* — 2021
- 5 Finder to Spanish

Research Internship @ Koç University – *Python, Blockchain* — 2021
- Implemented anonymous decentralized online donation scheme as a public ledger application
- Used the Algorand blockchain and Python SDK provided by Algorand

Computer Science Department TA @ Tufts University – *HTML, JavaScript, CSS, Python* — 2020-22
- Teaching Assistant CS20 – Web Programming (HTML, JavaScript, CSS)
- Teaching Assistant for CS10 – Intro to Coding (Python)

Engineering Intern @ Con Edison – *VBA, AVAIL* — 2018
- Added automated functionality and computations to Excel spreadsheets using VBA
- Used AVAIL software to compile 200+ geo-fences around MTA signal powering structures

PROJECTS

Movie Streaming Finder – *React.js, Rapid API* — 2023
- Designed an application that finds which streaming services currently have a specific movie
- 20 global streaming services and 57 countries are supported

Listen Up – *Python, Flask, Twilio API, Google News API, ChatGPT API* — 2023
- Voice-based news application where the user calls a phone number and is read currently trending news articles or articles gathered, in real-time, from their voice-based query
- User navigates between articles and menus solely through a telephone interface
- Routing is handled by a Flask application and ChatGPT produces optional summaries of each article
- Utilized multithreading when gathering articles in real-time for a seamless user experience

Optimal Goalkeeper Positioning as a RL Model – *Python* — 2022
- Reinforcement Learning application where a Multi-Armed Bandit agent learns the best goalkeeper position given the position of an incoming attacker
- The environment is a 2D shot distribution (heatmap) based on attacker initial position

Image Compressor and Decompressor – *C* — 2020
- Command line driver takes in image files to be compressed or decompressed
- Followed known mathematical and RBG compression algorithms to achieve lossy compression
- Designed specific bit-packing modules with a partner for efficient compression

SKILLS

Programming Languages and Computer-Related Skills
- Proficiency in HTML5, CSS, JavaScript, Python, Java, C, C++
- Extensive knowledge of React.js, Tailwind, Flask, Django, Linux, SQL, MongoDB, Git, R

Other Skills and Interests
- Fluency in Italian, conversational Spanish, beginner in Arabic
- Great interest in the stock market, world news, travel, and chess