MATTIA DANESE

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EDUCATION

TUFTS UNIVERSITY, MS Computer Science – Gordon Institute – 3.95 GPA 2022-2023

Notable Elective Courses

• Cloud Computing – Big Data – Reinforcement Learning – Computer Graphics – Visual Analytics

TUFTS UNIVERSITY, BS Computer Science – School of Engineering – 3.72 GPA – MCL 2019-2022

Notable Elective Courses

• Intro to Security – Cryptography – Network Security – Intro to Machine Learning – Database Systems

WORK EXPERIENCE

Computer Science TA @ Tufts University – *HTML, JavaScript, CSS* Sept-Dec 2022

• Teaching Assistant in the Computer Science Department for CS20 – Web Programming

Software Engineering Internship @ Mass Energize – *Python (Django), React.js* Jun-Aug 2022

• Used the Google Docs API to implement efficient importing and exporting of user content to the Mass Energize Admin Portal alongside the design of specific import and export template docs
• Implemented logic to ensure username uniqueness across the Mass Energize Frontend Portal
• Restructured the Mass Energize registration page with a focus on simplicity and user experience
• Identified stale stored media and implemented a monthly cron function to delete such media

Software Engineering Internship @ WAISN – *Python (Django), React.js* Oct-Dec 2021

• Debugged and addressed several issues of the WAISN Resource Finder
• Added additional functionality and desired features to the Resource Finder
• Helped to rework auto-translation for all content in the Resource Finder
• Utilized Git/GitHub for file management and version control

Research Intern @ Koç University – *Python* July-Aug 2021

• Implemented anonymous decentralized online donation scheme as a public ledger application
• Used the Algorand blockchain and Python SDK provided by Algorand

Computer Science TA @ Tufts University – *Python* Sept-Dec 2020

• Teaching Assistant in the Computer Science Department for CS10 – Intro to Coding

Engineering Intern @ Con Edison (coned.com) – *VBA, AVAIL* July-Aug 2018

• Added functionality to Excel spreadsheets using VBA
• Used AVAIL software to compile 200+ geo-fences around MTA signal powering structures

PROJECTS

Tufts University Projects – *C, C++* Jan-May 2020

• Designed an image compressor and decompressor program. Utilized provided mathematical and RBG algorithms and wrote bit-packing algorithms
• Designed a program that deletes black-edges of PDF or image file by specifically detecting black pixels that are either on the edge or connected to black pixels on the edge (recursion not optimal)
• Designed a program that can rotate and transform ppm images. My solution heavily considered spatial and temporal locality as it could not exceed specific quotas.

SKILLS

Programming Languages and Computer-Related Skills

• Proficiency in HTML5, CSS, JavaScript, Python, Java, C, C++
• Extensive knowledge of React.js, Django, Linux, SQL, VBA, Git, R, Microsoft Office

Other Skills and Interests

• Fluency in Italian, conversational Spanish, beginner in Arabic
• Great interest in the stock market, cryptocurrency, international news, and travel