

# MATTIA DANESE

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EDUCATION	<b>TUFTS UNIVERSITY</b> , Gordon Institute – MS Computer Science – 3.95 GPA 2023 <b>TUFTS UNIVERSITY</b> , School of Engineering – BS Computer Science – 3.72 GPA – MCL 2022
WORK EXPERIENCE	<b>Full Stack Internship @ MassEnergize</b> – <i>Python (Django), React.js, Git</i> 2022 <ul style="list-style-type: none"><li>• Learned to use the Google Docs API to automate efficient and scalable importing/exporting of user content to the Admin Portal for weekly usage by 70 community admins</li><li>• Led ownership of real-time username uniqueness checks for 300+ Frontend Portal users</li><li>• Designed and deployed a monthly cron function to identify/delete stale stored media (2.5 GB to date)</li></ul> <b>Full Stack Internship @ WAISN (immigrant resource page)</b> – <i>Python (Django), React.js, Git</i> 2021 <ul style="list-style-type: none"><li>• Auto-translated 1,200+ resources to Spanish using Google Translate API upon resource creation</li><li>• Interviewed ~15 clients to develop and ship ~10 minor Resource Finder features to production</li></ul> <b>Engineering Internship @ Con Edison</b> – <i>VBA, AVAIL</i> 2018 <ul style="list-style-type: none"><li>• Used AVAIL software to compile 200+ geo-fence data points around MTA signal powering structures</li><li>• Communicated with stakeholders to automate computations in Excel spreadsheets using VBA</li></ul>
PROJECTS	<b>Listen Up</b> – <i>Python, Flask, Twilio API, Google News API, ChatGPT API</i> 2023 <ul style="list-style-type: none"><li>• Voice-based news app delivering real-time articles via phone calls in response to user queries</li><li>• Learned to use Twilio's API for app interface &amp; ChatGPT API to create 5 sentence article summaries</li><li>• Decreased article process time from an average of 6.5 to 0.5 seconds by employing multithreading</li><li>• Led a team of 3 in developing an internal API as a Flask application to handle routing</li></ul> <b>Movie Streaming Finder</b> – <i>React.js, Rapid API</i> 2023 <ul style="list-style-type: none"><li>• Designed, implemented, and tested an end-to-end application that finds which streaming services currently offer a specific movie</li><li>• 20 global streaming services and 57 countries are supported</li></ul> <b>Optimal Goalkeeper Positioning as a RL Model</b> – <i>Python, Machine Learning</i> 2022 <ul style="list-style-type: none"><li>• Collaborated with a partner to create a Reinforcement Learning application where a Multi-Armed Bandit agent learns the best goalkeeper position given 5 different positions of an incoming attacker</li><li>• Goalkeeper position is learned through a 2D shot distribution for each of the 5 attacker positions</li></ul> <b>Image Compressor and Decompressor</b> – <i>C</i> 2020 <ul style="list-style-type: none"><li>• Command line driver takes in image files to be compressed or decompressed</li><li>• Designed scalable bit-packing modules for efficient compression by collaborating with a classmate</li><li>• Applied known mathematical and RBG compression algorithms to achieve lossy compression</li></ul>
TEACHING & RESEARCH	<b>Computer Science Department TA @ Tufts University</b> – <i>HTML, JavaScript, CSS, Python</i> 2020-22 <ul style="list-style-type: none"><li>• Teaching Assistant CS20 – Web Programming (HTML, JavaScript, CSS)</li><li>• Teaching Assistant for CS10 – Intro to Coding (Python)</li></ul> <b>Blockchain Research Internship @ Koç University</b> – <i>Python, Blockchain, Algorand</i> 2021 <ul style="list-style-type: none"><li>• Implemented anonymous decentralized online donation scheme as a public ledger application</li><li>• Used the Algorand blockchain and Python SDK provided by Algorand</li></ul>
SKILLS	<b>Programming Languages and Computer-Related Skills</b> <ul style="list-style-type: none"><li>• Proficiency in Python, C, C++, Java, HTML5, CSS, JavaScript</li><li>• Extensive knowledge of AWS, APIs, React.js, Tailwind, Flask, Django, Linux, SQL, MongoDB, Git, R</li></ul> <b>Other Skills and Interests</b> <ul style="list-style-type: none"><li>• Languages: Italian (fluent), Spanish (conversational), Arabic (beginner)   US-Italy Dual Citizen</li><li>• Interests: Soccer (Inter Milan), Skiing, Day Trading, Personal Finance, Chess, House Music</li></ul>