# Tyler Dong

Boston, MA | (781) 690 9685 | dong.ty@northeastern.edu | [linkedin.com/in/tylerdong/](https://linkedin.com/in/tylerdong/) | [github.com/tylerdong878](https://github.com/tylerdong878) | [tylerdong.vercel.app](https://tylerdong.vercel.app)

## EDUCATION

**Northeastern University, College of Engineering,** Boston, MA                                    Sep 2024 - Present
*Candidate for a Bachelor of Science in Computer Engineering and Computer Science*
**Cumulative GPA:** 3.964/4.0 | Dean's List (each semester) | IBM Thomas J. Watson Memorial Scholarship Recipient
**Coursework:** Object Oriented Design, Networks, Discrete Structures, Differential Equations and Linear Algebra, Physics 1 & 2
**CodePath**: Data Structures & Algorithms (TIP102)

## SKILLS

**Programming Languages:** Python, Java, C++, C#, HTML, JavaScript, TypeScript, CSS, MATLAB, Racket
**Frameworks & Libraries:** PyTorch, ML-Agents, NumPy, pandas, PyMuPDF, OpenCV, Next.js, React, Tailwind CSS, Flask, JUnit
**Development Tools & Platforms:** Git, Supabase, Firebase, Visual Studio Code, InteliJ
**Electronics & Design Engineering:** Arduino, Solidworks, AutoCAD, OnShape, Soldering, Tinkercad

## EXPERIENCE

**Khoury College of Computer Science**                                                                      Remote
*Teaching Assistant*                                                                                Jun 2025 - Present
- Support and grade 70+ students in core computer science topics including binary/hexadecimal systems, Boolean logic and circuit design, graph theory and traversal algorithms, sorting algorithm analysis, and computational complexity (Big O notation)
- Guide students through discrete mathematics concepts such as combinatorics and permutations, probability theory (conditional probability, Bayes' theorem, expectation, variance), set theory operations, and rigorous mathematical proof techniques

**Northeastern Combat Robotics**                                                                      Boston, MA
*Robotics Engineer*                                                                                  Sep 2024 - Present
- Design and manufacture battlebot components in OnShape and SolidWorks; integrate and solder electrical control systems
- Build, test, and compete with 1-pound plastic combat robots

**Outamation**                                                                                              Remote
*AI Automation Extern*                                                                              May 2025 - Jul 2025
- Engineered AI-powered workflows to automate document classification and data extraction, using Natural Language Processing (NLP), Computer Vision, and Python-based pipelines (PyMuPDF, OCR techniques)
- Developed a retrieval system with LlamaIndex and Retrieval-Augmented Generation (RAG) to improve information search accuracy and information retrieval across complex mortgage documents
- Benchmarked open-source AI models for document processing performance; delivered comprehensive report on optimization strategies and deployment recommendations

**Quartzy Capital Advisors, LLC**                                                                    New York, NY
*Data Research Intern*                                                                              Jun 2023 - Aug 2023
- Developed a Python tool leveraging yfinance and pandas to automate historical financial data analysis and calculate key financial metrics, fully eliminating manual Excel calculations and data entry errors
- Analyzed and organized financial instrumentation on a quantitative investment database with 500+ securities
- Conducted industry research to identify investment prospects; built templates to streamline processes and enhance data management

## PROJECTS

**NBA Player Consistency Analyzer [[GitHub](https://github.com)] |** *Python, HTML, JavaScript, CSS, Flask, nba_api*          Mar-Apr 2025
- Developed a responsive web application to analyze NBA player consistency using live data from nba_api
- Enabled users to dynamically set thresholds and game count to identify players based on points, rebounds, and assists

**SpendShield [[Devpost](https://devpost.com)] |** *Next.js, TypeScript, React, Tailwind CSS, Shadcn, Supabase*          Feb-Mar 2025
- Achieved HackOlympian Finalist recognition, top 5 out of 105 projects and 350+ participants at HackIllinois
- Built a gamified social finance application that transforms financial management into an engaging social experience
- Developed 10+ modular, responsive UI pages with dozens of components using Tailwind CSS and Shadcn

**AnimaGo [[Devpost](https://devpost.com)] |** *Python, UV, Flet, FastAPI, Firebase, Moondream, YOLOv8, SAM 2, OpenCV, PyTorch*          Feb 2025
- Awarded "Best Design" out of 40 projects and 190+ participants at Civic Tech Hackathon
- Engineered an augmented reality mobile app that gamifies wildlife discovery and conservation through real-time species identification, enabling users to explore outdoors, catalog findings in a personalized "Biodex," and contribute to citizen science efforts
- Leveraged OpenCV, Moondream, YOLOv8, and Segment Anything Model 2 for AI-powered animal detection and recognition

**SVS Lunar Client [[Devpost](https://devpost.com)] |** *C#, Python, Unity, PyTorch, ML-Agents*          Nov 2024
- Awarded 1st Place for "Interstellar Intelligence" Track (AI/ML) out of 49 projects and 200+ participants at BostonHacks
- Implemented a deep reinforcement learning model that simulates space environments to train AI to complete specific tasks

## EXRACURRICULARS

Leadership: Cradles to Crayons - Teen Leader & Ambassador, Aerovate MA - Tutor, Tennis Co-Captain
Activities/Societies: Combat Robotics, REV Startup School, MIT Augmentation Lab, Electric Racing, Wireless Club, CodePath, NEU SASE
Interests: Video Editing, Graphic Design, Tennis, Soccer, Broomball, Pickleball