

Tushar Tyagi

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EDUCATION

Arizona State University

Tempe, AZ

Bachelor of Science in Computer Science | GPA: 4.0

Aug. 2021 – Dec 2024

Relevant Coursework: DSA, OOP, Intro to SWE, iOS App Dev, Human-Computer Interactions, Operating Systems, Computer Networks, Intro to ML, Intro to AI, Data Visualization, DBMS, Entrepreneurship, Engineering Grand Challenges | **Leadership:** 3x Student Leader (Grand Challenges Scholars Program), 4x Teaching Assistant, VP @ Python Users Group | **Honors/Awards:** NAMU Scholar (Merit-based; 62,000\$ scholarship), 3x Panelist, 6x Dean's List

EXPERIENCE

Software Engineering Intern

May 2024 – Present

Quicktron Robotics

Dallas, TX

- First Intern at this AMR warehousing startup - Led the establishment of **Quicktron's US-based codebase** enabling in-country hosting and deployment, thereby driving a **500,000\$+** increase in revenue from new projects
- Deployed and troubleshooted** Quicktron's robots & software systems, collaborated cross-functionally with international teams, produced detailed **technical documentation**, and traveled nationally for technical site visits

UI/UX Designer & GenAI Lead

Nov 2023 – Aug 2024

NX Lab: Enterprise Technology Office | Arizona State University

Tempe, AZ

- Led weekly meetings to **develop GenAI tools**, enhancing efficiency multifold within NX Lab's guilds/projects
- Extensively conducted user research, developed personas, created user flows, & **wireframed in Figma for 2 Digital Twin projects** focused on immersive city promotion & digital equity, funded by state institutions
- Hosted international delegations and served as a representative in external VR education initiatives

Data Analyst

Oct 2022 – May 2024

Neural Engineering Lab | Arizona State University

Tempe, AZ

- Utilized ASU supercomputers to analyze a **32-channel 12-category dataset** of microelectrode recordings from a human brain using **MATLAB & Python** to study speech processing in humans from scratch
- Performed PCA & CNN Decoding of **8,800 spectrogram images** achieving **>98% accuracy**
- Presented research work at a national conference; Featured in ASU's annual magazine; Publication in progress

Project Manager & Consultant

Nov 2021 – May 2023

Engineering Projects in Community Service | Arizona State University

Tempe, AZ

- Mentored engineering projects at ASU & high schools across Arizona, **providing guidance to 30+ teams** on their design documents, project pitches, technical challenges, and project hurdles over **weekly meetings**
- Reviewed **20+ project pitches & 40+ design documents**, allocating **over >50,000\$** in project funding and scholarships from ASU. Also conducted **25+ skill sessions** for students, teaching Python, SQL, pitching, etc.

PROJECTS

MySchoolSouq | Swift, Google APIs, Firebase, MVVM, Figma, XCode

- * **Published iOS App** that facilitates users to buy or sell used books within their city (in Beta mode)
- * Implemented Firebase for auth/storage, auto-location book search, and API-based ISBN info fill for postings

DataDaddy | Python (GPT4, FastAPI, matplotlib, scikit), Docker, React/Node.js

- * Developed frontend for an **AI-driven data analysis tool** that generates unique insights & plots from CSV files
- * **Won the Capital One Sponsor Prize** at PennApps XXIV (UPenn's annual flagship hackathon)

Lesson Planner | OpenAI API, Python, Flask, HTML, CSS, Heroku

- * Independently produced an **OpenAI-based lesson planner** for teachers of The Digital School initiative customized based on subject, region, class, duration, and sample templates
- * **Won 3rd Prize @ CodersHQ Hackathon, Dubai** sponsored by the Prime Minister's Office, UAE

Web Messenger | React, HTML, CSS, JavaScript, Firebase, Vercel

- * Built a full-stack web chat app inspired by iMessage's aesthetics, incorporating email-based user authentication and real-time data storage and synchronization; Deployed and hosted on Vercel

SKILLS

Languages : Python, Java, C++, Matlab, SQL, HTML, CSS, JavaScript, Swift, Scheme, Assembly x86-64

Frameworks & Libraries: Matplotlib, Pandas, Tkinter, TensorFlow, Numpy, Flask, BeautifulSoup, Scikit-Learn

Tools & Technologies: React, Node.js, MySQL, Unity, Firebase, Vercel, Heroku, Git, Google Cloud Platform, AWS, Figma, Arduino, REST, Docker, Linux, VS Code, XCode, IntelliJ, Eclipse, ArcGIS, Jira, Audacity, Tableau, Trello

Others: Market Research, Competitive Analysis, Agile, Product Management, Leadership, Cross Functional