

# 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, Engineering Grand Challenges, Entrepreneurship | **Leadership:** 4x Student Leader (Grand Challenges Scholars Program), 4x Teaching Assistant, VP @ Python Users Group | **Honors/Awards:** NAMU Scholar (Merit-based; 62,000\$ scholarship), Panelist @ Digital Trust Summit & Data Privacy Day, Dean's List (All semesters)

## EXPERIENCE

### Software Engineering Intern

May 2024 – Aug 2024

*Quicktron Robotics*

*Dallas, TX*

- First US Intern at this Chinese AMR warehousing startup; Led the establishment of **Quicktron's US-based codebase** enabling in-country hosting and deployment, thereby driving **500,000\$+** in new projects
- Traveled nationally to **configure and debug** Quicktron's robots and software systems, while also **independently hosting 4 technical site visits** for potential clients

### UI/UX Designer & GenAI Lead

Nov 2023 – Present

*NX Lab: Enterprise Technology Office | Arizona State University*

*Tempe, AZ*

- Senior Studio Associate @ ASU's flagship VR Lab; Directly worked with & presented to HNIs
- 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

### Data Analyst

Oct 2022 – Present

*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
- Conducted 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, ESRI, Audacity, AutoCAD, Trello