ASHKAN ARABI

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EDUCATION

Bachelor of Science in Computer Science, Mathematics Minor Graduating 05/26
University of Texas at El Paso, El Paso, TX GPA: 3.95
Major GPA: 4.00

Relevant coursework: Object-Oriented Programming, Data Structures and Algorithms, Operating Systems , Matrix Algebra

SKILLS

Languages: Python(advanced), Java(advanced), Vala(mid), HTML/CSS(mid), JavaScript(mid), TypeScript(mid), UML(mid), Bash shell scripting(mid), Haskell(mid), SQL(novice), C++(novice), C(novice),
Tools: Linux(advanced), Git(advanced), GTK(mid), PyTorch(mid), NumPy(mid), Docker(novice), React.JS(novice),

EXPERIENCE

Information Technology Intern: Texas Instruments, Dallas, TX May 2024 - August 2024

- Set up infrastructure for **fab transporter robots** by configuring **Docker** containers on Linux servers.
- Ensured system reliability through unit and integration testing with Insomnia.
- Coordinated with 10+ sysadmins & stakeholders to configure Oracle **SQL** databases and internal APIs.

Open-Source Contributor: GNOME Foundation, Remote December 2023 - June 2024

- Collaborated with software engineers in development of GNOME Clocks; **used by thousands of Linux users** to track time.
- Added features such as full-screen timers and timer editing (link to video demo).
- Fixed timers not progressing during system suspend by revising timer logic.
- Added functionality to world clock to show country and state when two cities have the same name.

Undergraduate Research Assistant: UTEP, El Paso, TX January 2024 - May 2024

- Contributed to creation of Autistic vs neurotypical speech classifier by using generative AI to synthesize training data.
- Developed an **accent-changer model** able to convert foreign English accents to native using **HuggingFace** pretrained models through their **Python** API.
- Implemented a **neural style-transfer model** in **PyTorch** to learn PyTorch & explore usage for accent-changing.
- Reduced evaluation script runtime **from 24+ hours to 10 minutes** by rewriting loops as higher-dimension tensor operations.

Undergraduate Research Intern: Temple University, Philadelphia, PA June - July 2023

- Wrote **first-author publication** presented at ACM MobiHoc about using Wi-Fi CSI for hand gesture recognition on phones.
- Developed CNN architecture to classify 5 gestures from 4 people in 6 scenarios using **Keras**.
- Obtained >90% classification accuracy by using techniques such as LR Scheduling.
- **1st place** for the best REU site final presentation.

PROJECTS

AshBlog (in progress) August 2024 - present

- Created a blog to share useful software and programming tips as I learn them.
- Used **React.JS**, **TypeScript**, and MUI component library to quickly bring my design to life.
- Utilized Gatsby to allow writing blog entries in Markdown.

PWAANG - a board game written in Haskell May 2024

- Implemented a board game in **Haskell** (functional programming language) using monads, pattern matching, and recursion.

CLI Car Dealership April 2024

- Wrote an Object-Oriented car dealership software in **Java** following MVC architecture & OOP design patterns.
- Used Git & GitHub features such as pull requests, merges and branches to work in team of 3.

Linux Timer January 2024

- Developed a **Linux** timer application using **GTK & Vala**, using an event-driven architecture.
- Implemented functionalities for starting, pausing, resetting, and editing timers, using different GTK4 widgets & signals.

LEADERSHIP

President & Founder - Free and Open Source Software Club at UTEP December 2023 - Present

- Recruited team of 6 officers to host weekly workshops on git, Linux, Vim, open-source software development, and more.
- Hosted UTEP's **first open-source hackathon**, OpenHack, attended by more than **12 first-time contributors**.

Treasurer - Association for Computing Machinery at UTEP August 2022 - January 2024

- Held the Sun City Hackathon; a three-day competition attended by **more than 20 students** to develop AI-powered apps.