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: 3.94
Major GPA: 4.00

Relevant coursework: Object-Oriented Programming, Data Structures & Algorithms, Operating Systems

SKILLS

Programming / **Markup Languages:** Python, Vala, HTML/CSS, JavaScript, Java, Bash, Haskell, PHP, LaTeX, C
Frameworks & Software: Linux, git, GTK, NumPy, Pandas, PyTorch, TensorFlow, React.JS, Conda, Docker
Certifications: Coursera Deep Learning Specialization - October 2023

EXPERIENCE

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

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

- Contributed to creation of Autistic vs neurotypical speech classifier by using AI/ML 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.

Open-Source Contributor: GNOME Foundation, Remote — December 2023 - present

- Modernized GNOME Clocks' UI to add features such as full-screen timers and timer editing. (in progress)
- Fixed GNOME Clocks timers not progressing during system suspend by revising timer logic. (merged)
- Added functionality to world clock to show country and state in case two cities have the same name. (open)

PROJECTS

CLI Car Dealership — April 2024

- Wrote an Object-Oriented car dealership software in **Java** following MVC architecture, with 2300+ lines of code.
- Used Git & GitHub features such as pull requests, merges, branches, and rebasing for collaborating in team of 3.
- Included operations to buy, restock, or add cars, monitor the revenue of each vehicle type, add / remove users, etc.

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.

Pong for MSP430 — November 2023

- Designed and implemented a **C** Pong game for MSP430, with paddle movement, ball physics, and score tracking.
- Achieved 30+ FPS gameplay by using partial framebuffer updating instead of redrawing whole screen.
- Integrated buzzer audio feedback for game events such as ball-wall collisions and score updates.

Advent of Code 2022 - Annual Programming Challenge — August 2023

- Coded **C++** solutions to 12 of 25 challenge questions using backtracking, and graph traversal algorithms, and more.
- Used classes, queues, vectors, and streams to efficiently calculate results based on given inputs.

Tic Tac Toe Web App — Fall 2022

- Developed a tic-tac-toe game using **HTML, CSS, and JavaScript**, with a special focus on the visuals.
- Used JavaScript to manage game state, handle player moves, and determine game outcomes.
- Utilized CSS glow, shading, and animations for a Neumorphist UI style.

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 contributing, and more.
- Hosted UTEP's **first open-source hackathon**, OpenHack, attended by more than 12 first-time contributors.