ARYA AGIWAL

github.com/aryaagiwal | linkedin.com/in/aryaagiwal | aryaagiwal@utexas.edu

EDUCATION

The University of Texas at Austin - *Bachelor of Science, Computer Science* May 2024
GPA: 3.92 (University Honors)

Courses: Computer Architecture, Data Structures, Multivariable Calculus, Discrete Math, Probability and Statistics

LEADERSHIP AND ACTIVITIES

TX Convergent - *Artificial Intelligence and Data Analysis Case Developer* September 2021 – Present

- Developed website allowing small businesses to compare and review financial/technical business software
- Constructed digital platform that curates a feed of stocks based on user feedback and Yahoo Stocks API
- Designed user interface for digital platform in Figma, accounting for display differences across platforms

Engineering/Computational Learning of AI in Robotics (ECLAIR) - *Member* August 2021 – Present

- Modeled and reprogrammed a robotic arm in PyBullet to train it to pick up and move small objects
- Optimized robotic arm URDF to accurately reflect the range of motion of the arm and servos' strengths
- Produced dataset of facial images to analyze in Python with Machine Learning to recreate facial detection

ByteHacks 2020 – *First Place Winner*

- Prototyped a web military inventory system using Google Navigation API for ancient Roman Soldiers
- Implemented models of military weaponry into EchoAR to provide live web AR models of equipment

Hack the World 2020 – *Third Place Winner*

- Modeled a water quality sensor that utilizes data from 7 separate sensors to produce one quality index
- Researched measurement systems for dissolved oxygen, fecal coliform, Nitrate, and various other factors to develop algorithm in Java that combines data into meaningful output

UniGlobe Hacks – *EchoAR Award Recipient*

- Programmed a prototype lab safety course implementing EchoAR to displays AR models of lab equipment

PROJECTS

Radix Converter – *Independent Project*

- Converted numbers between any two radices in C, if the number can be represented in numerical digits
- Able to work around floating-point error to convert fractional values by manually computing values
- Prototyped new ASCII-based system to represent up to base 71 numbers in single digit symbols

Wordle Solver – *Partnered Research Project*

- Engineered an algorithm that figures out the next word to try for each round of the Wordle web game
- Scanned through list of weighted 5 letter words to break ties and identify remaining possibilities.
- Generated weights for words through character frequency probabilities and previous guess data

COMMUNITY INVOLVEMENT

Hindu Swayamsevak Sangh - *UT Branch Vice President, Branch Co-Founder, Lecturer* March 2016 - Present

- Coordinated general meetings and hold lectures about Hinduism for audiences of 15-25 UT students
- Promoted campus cleaning and organize cultural events with UT Austin Student Activities Center
- Earned $2500 through UT sponsor to celebrate the Hindu New Year with performances and cultural booths
- Invited guest speakers to talk about the Vedas and provide insight into Hindu culture and volunteering projects in front of 30 - 80 attendees

SKILLS + INFO

- **Languages:** Java, C, HTML, Python, C# (Used in combination with Git, Linux Environment)
- **Certifications:** CS IB C#, CS IB Python
- **Interests:** Football, Writing, Music, Reading, Minecraft, Chess, French Horn