## **ARYA AGIWAL**

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### **EDUCATION**

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

May 2025

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
- Constructing 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

- Modeling and reprogramming a robotic arm in PyBullet to train it to pick up and move small objects
- Optimizing robotic arm URDF to accurately reflect the range of motion of the arm and servos' strengths
- Producing 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

### **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*

- Converts 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

- Engineering an algorithm that figures out the next word to try for each round of the Wordle web game
- Scans through list of weighted 5 letter words to break ties and identify remaining possibilities.
- Generates 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

- Coordinate general meetings and hold lectures about Hinduism for audiences of 15-25 UT students
- Promote 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, Experienced with HTML, Python, C# (Used in combination with Git, Linux Environment)
- Certifications: CS IB C# and CS IB Python Certifications
- Interests: Football, Novel writing, Music, Reading, Minecraft, Chess, French Horn