

ARYA AGIWAL

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EDUCATION

The University of Texas at Austin - *Bachelor of Science, Computer Science* May 2024
GPA: 3.96 (University Honors)

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

EXPERIENCE

Verizon – *Product Engineering/Development Intern; Dallas, TX* June 2022 – August 2022

- Designed a Jupyter Python script that computes relationships between over 100,000 customers' Wi-Fi receiver data and location information to identify and update geographical data usage trends every 6 hours
- Engineered Splunk visualization operations to filter through over 100 million datapoints every 12 hours
- Utilized Crontab to run Python scripted server alarm checks to identify new customer router performance issues and network outages efficiently, minimizing the time previously used to identify such issues manually

LEADERSHIP AND ACTIVITIES

TX Convergent – *Build Team Technical Lead Officer* 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

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