DHRUV AGARWAL

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Education

University of Missouri, Columbia – Honors College   Anticipated Graduation: May 2024
- B.S. in Computer Science, Minor in Mathematics | **GPA: 3.8**
- **Courses:** DSA, Databases, Logic Systems, OOP, Operating Systems, Assembly, Circuit Theory

Skills

- **Languages & Frameworks:** Python, C, Java, JavaScript, SQL, TypeScript, React.js, Bootstrap/SCSS, Jest, jQuery
- **Tools & Technologies:** Node.js, Discord API, Docker, Arduino, Selenium, Firebase, Figma, Git, Jira, UnrealEngine

Experience

John Deere   **May 2022 – August 2022**
Software Engineering Intern   Moline, IL
- Reduced 400+ employees' time to edit dealer settings by 95% by developing a webapp for toggling of user rights
- Utilized React.js, Node.js, TypeScript, and SCSS for frontend development, and Java & AWS for backend tasks
- Pulled from an Amazon DynamoDB database on AWS which contained data for over 5,000 feature toggles
- Developed unit & integration tests using Docker, Jest, and Puppeteer to prevent bugs from entering production

Mizzou Informatics and Data Fusion Lab   **August 2021 - Present**
Machine Learning Research Assistant   Columbia, MO
- Simulated infrared ground truth imagery for explosive hazard detection by training ML algorithms with big data
- Trained AI/ML models through data collected by hemisphere camera collects over simulated environments in UE5
- Developed HoloLens augmented reality environments for use in US military operation simulations and trainings

SpeechKing   **March 2020 – Present**
Software Engineer   St. Louis, MO
- Built a react webapp used to manage 120+ schedules, store & display data, and provide sign-in functionality
- Web app is used to help impoverished students in other countries learn English through one-on-one tutoring
- Increased the efficiency of lesson scheduling and planning by over 300%, ensuring a structured scheduling system

Mizzou Society of Asian Scientists and Engineers   **March 2022 - Present**
Founder & Treasurer   Columbia, MO
- Led the club to grow to its current size of 70+ members via social media engagement, outreach, and campaigning
- Oversaw over $6,000 of club funds by allocating and planning a detailed budget plan throughout the school year

Mizzou Computing Association   **September 2021 – Present**
Interview Prep Member   Columbia, MO
- Worked through and solved algorithmic coding problems by practicing and applying DS&A's in group settings
- Created a webapp using Google Maps API and Firebase which won 2nd out of 80+ submissions in TigerHacks 2022

MoonRock Technologies   **June 2019 - August 2019**
Software Engineering Intern   St. Louis, MO
- Developed automation tests to ensure the functionality of 20+ websites hosted/managed by MoonRock Tech
- Test cases were written using Selenium and Node.js, leading to over 13+ fatal bug catches and eventual fixes

Projects

MUCourses | MUCourses.com | *JavaScript, jQuery, Chart.js, Bootstrap, Firebase*   **July 2022 – September 2022**
- Search engine that provides lookup functionality for grade distributions, storing data for over 140,000 past classes
- Received over 2,500 page visits within the first 4 months of release, with a 20% user retention rate over 3 months
- Displays data over 90% faster than MU's official grades website, with additional search filters and neater statistics
- Emphasis on the display feature of grade distributions, presented in elegantly formatted graphs with Chart.js

Truman Bot | Github Demo | *Python, Discord API, Matplotlib, BS4, RegEx*   **May 2022 – July 2022**
- Online bot hosted on the cloud utilized in 10+ Mizzou affiliated servers with over 2,000 Mizzou students total
- Functionality for 30+ commands, such as dining hall menus and hours, directory lookups, grade distributions, etc.
- Search commands rely on RegEx searching to parse and interpret the user's request to provide accurate data