ARIF SYRAJ

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EDUCATION

University of San Francisco   San Francisco, CA
Master of Science, Computer Science   *August 2023 – May 2025*
Relevant Coursework: Principles of Software Development, Foundations of A.I.

University of Illinois at Urbana-Champaign   Champaign, IL
Bachelor of Science, Mechanical Engineering   *August 2016 - May 2021*
Relevant Coursework: Discrete Structures, Data Structures & Algorithms, Database Systems, Linear Algebra

TECHNICAL SKILLS

Programming: Python, Java, C++, JavaScript, HTML5, CSS3, SQL
General: Agile, Data Scraping, Data Analysis, RDBMS Design, Unit Testing, Multithreading
Frameworks/Tools: Linux, Docker, ROS, scikit-learn, MongoDB, React, Node.js, Express, JUnit

EXPERIENCE

Software Engineer   March 2021 – August 2022
EarthSense, Inc.   *Champaign, IL*
- Designed an algorithm to estimate plant height using noisy LiDAR data collected by our phenotyping robot, cutting error by >50% across datasets over the previous algorithm and beating accuracy of manual measurements.
- Revamped robot autonomy by designing a crash detection algorithm fusing LiDAR and odometry data collected from various environments, reducing overall false positives and negatives by 75%.
- Greatly decreased need for manual waypoint recording by implementing automatic waypoint generation on turns, saving customers several minutes per data collection and improving robot autonomy.
- Introduced a culture of documentation in our workflows for libraries and testing methodologies, which I later used to onboard interns for a summer.
- Extensively tested robot system functionality, standardized testing methodologies and created utility shell scripts, helping catch several system bugs before deployment to customers.

PROJECTS

Craigslist Apartment Scraper   July 2023
- A script I created to find an apartment in San Francisco. Craigslist was scraped to get information about listings, which was output to an HTML file to make it easier to browse dozens or hundreds of listings at a glance.
- Developed the Python script that scrapes listings according to desired rent, number of bedrooms, location, and shared rooms versus whole apartment listings.
- Queried OpenStreetMap for travel times to a given work location by car, bike, or foot to sort listings by commute.

Mindset   November 2023
- A wellness web-app with a task management system to help users track and quit addictions, track nutrition, sleep quality and focus on work.
- Set up server using Node.js with Express, authentication using Passport.js and Google OAuth2, and the database with Mongoose.

Reddit Product Scraper   March 2021
- Solo project to find specific products being re-sold on Reddit subreddits to get them at a discount.
- Leveraged the Reddit API to scrape thousands of posts per minute to find relevant products and deliver them to the user in a readable fashion.
- Personally saved $150 on $500 worth of purchases.

AWARDS/PUBLICATIONS

University of San Francisco Computer Science Scholarship - Merit Based Award   May 2023
EnterpriseWorks Top Summer Intern Award   July 2021
- Was awarded the top summer intern award for the 'Best Technical Innovation' category by the EnterpriseWorks Incubator.