

ARIF SYRAJ

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EDUCATION

University of San Francisco

Master of Science, Computer Science

Relevant Coursework: Principles of Software Development, Foundations of A.I.

San Francisco, CA

August 2023 – Present

University of Illinois at Urbana-Champaign

Bachelor of Science, Mechanical Engineering

Relevant Coursework: Discrete Structures, Data Structures & Algorithms, Database Systems, Linear Algebra

Champaign, IL

August 2016 – May 2021

TECHNICAL SKILLS

Programming: Python, Java, C++, JavaScript, HTML5, CSS3, SQL

General: Agile, Azure, Customer Service, Data Scraping, Data Analysis, RDBMS Design, Unit Testing

Frameworks/Tools: Linux, Docker, ROS, scikit-learn, MongoDB, React, Node.js, Express, JUnit

EXPERIENCE

Software Engineer

EarthSense, Inc.

March 2021 – August 2022

Champaign, IL

- Worked on backend data analytics and robot navigation algorithms using mainly Python.
- Designed an algorithm to estimate plant height using occluded LiDAR data collected by our phenotyping robot, cutting error by >50% across datasets over the previous algorithm and beating accuracy of manual measurements.
- Improved robot autonomy by designing novel turning maneuvers using GPS and a crash detection algorithm using LiDAR data and odometry.
- Introduced a culture of documentation and peer review for documentation in our workflows.
- Onboarded interns by giving them said documentation along with tasks to quickly familiarize them with our tech stack.
- Produced supplementary data from point-clouds generated through LiDAR data to improve existing algorithms.
- Extensively tested robot system functionality and created test methodologies to find software and hardware bugs.
- Caught several software bugs before deployment by implementing software in the loop testing.
- Traveled and met with our biggest clients to demo our robot's capabilities.

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.
- Sorted scraped listings according to buckets of travel time, price, and date posted to find the right mix of conditions for an apartment.

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 products.
- Created a python script to print relevant info in a readable manner with hyperlinks to posts for ease of use.
- Personally saved \$150 on \$500 worth of purchases.

AWARDS

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.