ARIF SYRAJ

929-271-7864 | arif.syraj1@gmail.com | linkedin.com/in/arifsyraj

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., Systems Programming, Software Development Lifecycle

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++, C, JavaScript, HTML5, CSS3, SQL
General: Agile, Data Scraping, Shell Scripting, RDBMS Design, Unit Testing, Multithreading, CI/CD, Automated Testing
Frameworks/Tools: Linux, Docker, ROS, tensorflow, scikit-learn, MongoDB, React, Node.js, Express, JUnit

EXPERIENCE

Software Engineer — March 2021 – July 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 Python web-scraping script that enables a user to browse hundreds of ads for rental accomodation on Craigslist in a fraction of the time it would take to do so using the website.
- Scraped results are output to HTML files in a readable manner according to a list of user-specified constraints on commute time, rent, number of bedrooms, location, shared versus whole apartments, and more.
- Allows a user to easily see commute times to a specified location by foot, bike, and car. This data is queried from OpenStreetMap and can be used to sort listings according to travel time buckets by a chosen mode of transport.

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.
- Group project where we used Node.js with Express to set up the server, Passport.js and Google OAuth2 for authentication, and Mongoose to store user data.

Fashion Image Classifier — December 2023
- Used keras and tensorflow to adapt ViT (Vision Transformer) to classify fashion articles by training on the fashion_mnist dataset.
- Achieved a train accuracy of 86.88% after 4 epochs of training on 4000 images.

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.