

ARIF SYRAJ

929-271-7864 | arif.syraj1@gmail.com | [linkedin.com/in/arifsyraj](https://www.linkedin.com/in/arifsyraj) | github.com/arif-syr

EDUCATION

University of San Francisco

Master of Science, Computer Science

San Francisco, CA

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

Bachelor of Science, Mechanical Engineering

Champaign, IL

August 2016 – May 2021

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

TECHNICAL SKILLS

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

General: Agile, Data Scraping, Shell Scripting, Containerization, Unit Testing, Multithreading, CI/CD, Automated Testing, Cloud Deployment

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.

Blackjack Agent

November 2023

- Developed an agent to play blackjack against humans using Q-learning as a reinforcement learning algorithm.
- Simulated an environment to teach an agent to optimize decision making by balancing exploration and exploitation.
- Used matplotlib and the learned policy of the agent to visualize agent policy.

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.