Sriram Natarajan

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EDUCATION

University of Illinois, Urbana-Champaign — August 2024 - May 2027
Bachelor of Science, Computer Science + Linguistics
Relevant Coursework: Multivariable Calculus, Honors Computer Science Foundations, Data Science and Statistical Foundations, Technological Innovation and Entrepreneurship

American High School — August 2020 - May 2024
High School Diploma
ACT: 35, GPA (Unweighted): 3.93/4.0, AP Scholar with Distinction. President of American High School Web Development Club.

SKILLS

Languages: Python, Java, C/C++, R, HTML/CSS
Tools: Matlab, Seaborn, TensorFlow, PyTorch, NumPy, Pandas/GeoPandas, SciKit Learn, OpenCV, Flask, Django, React.js, Node.js, Git/GitHub, Excel/Numbers/Sheets, REST API, AWS (EC2), Arduino/ Raspberry Pi

EXPERIENCE

Avian Conservation Through Spatial Data Analysis, *Student Research Associate* — October 2024 - Present
- Pinpointing areas for protecting bird populations by analyzing satellite and hyperspectral imagery
- Applying Generalized Linear Mixed Models to predict habitat selection and movement patterns for over 10+ bird species
- Leveraging Python and GIS to process spatial data and develop high resolution maps for 20 grassland areas across the Midwest

Gies Disruption Labs, *Software Engineering Intern* — September 2024 - Present
- Collaborating with a client to build and program The Koch v1.1 Robot using Robot Operating System (ROS)
- Integrating conversational AI commands into robot using Hugging Face's Open Source Platform, allowing for 10+ language-based commands
- Developing essential components such as LiDAR as well as depth cameras to enable environmental awareness and autonomous navigation with < 100 ms latency

Illinois Design Challenge, *Software Engineering Intern* — September 2024 - Present
- Constructing hackathon's website using HTML, CSS, and Javascript, as well as a back-end architecture to handle peak traffic during challenge, ensuring that platform can support up to 1000 users
- Implementing analytics tools such as Hotjar to track user engagement and identify areas for improvement
- Strategizing sponsorships to secure high-profile partners, aiming to increase event funding by 75%

Beyond Terra, *Innovation Lead* — July 2021 - June 2024
- Redesigned a second hand drone to reforest local areas affected from forest fires by dispersing seeds through the air
- Engineered and retrofitted a seed dropping mechanism using Arduino microcontrollers, servo motors, and CAD
- Programmed seed dropping mechanism using C++, employed OpenCV to map flight paths, achieving automated planting of over 3000 seedballs

PROJECTS

ChatGuard — December 2023
- Applied Computer Vision and Natural Language Processing to analyze screenshots from chat messages to detect online harassment
- Awarded first place in the Congressional App Challenge by Congressman Eric Swalwell

AudioLec — January 2023
- Devised a platform that leveraged Natural Language Processing to convert online lectures into comprehensive notes
- Proposed and implemented a YouTube recommendation feature, providing users with videos based on lecture concepts
- Honored as Top 10 in the US for The Technology Student Association Contest

LEADERSHIP & COMMUNITY INVOLVEMENT

Fremont Youth Advisory Commission, *Vice President* — August 2017 - June 2024
- Planned 4 college panel workshops, executed 3 financial literacy conferences, hosted first annual Fremont's Got Talent Show