

Soham Shirish Raut

(206)-532-6226 | sohamr@uw.edu | linkedin.com/in/sohamsraut | github.com/sohamsraut

Education

University of Washington, Seattle

Expected Graduation: Jun 2025

Bachelor of Science in Computer Science

- Junior at the Paul G. Allen School of Computer Science and Engineering, GPA: 3.90, Dean's List
- **Relevant Coursework:** Data Structures and Algorithms, Data Analytics, Hardware/Software Interface, Discrete Math and Probability, Automata Theory, Machine Learning, Web Development, Linear Algebra

Experience

Paul G. Allen School of Computer Science and Engineering | Seattle, WA

Jan 2023 - Present

Undergraduate Researcher

- Project: Automatically Decomposing D3 Visualizations - decomposing D3.js code into modular blocks, making it more beginner-friendly.
- Created reusable and re-mixable components from existing D3 examples to create a variety of customizable visualizations, after studying previous efforts to modularize D3.
- Documented diagrams of the decomposition process to generalize it across different visualization types.

Candent Technologies Pvt. Ltd. | Pune, India

Jul 2023 - Sep 2023

Software Engineer Intern

- Streamlined the automated candidate hiring system by devising a ranking system to rank candidates against a job based on skills, experiences and projects.
- Collaborated with a team of developers on a full-stack event planning and organization app in a scrum-based environment using Next.js, MongoDB, and Google APIs.
- Established a strong background in writing test code for applications, and in providing insight into the opportunities for future product and business development.

Projects

ML Modeling: COVID-19 Hospital Capabilities | Python Machine Learning Project

Mar 2023

- Devised 3 machine learning time-series models using TensorFlow in Python achieving 81% accuracy in predicting hospital bed availability during the COVID-19 pandemic.
- Conducted exploratory data analysis on the dataset, after trimming and principal component analysis.
- Increased the efficiency of the model by using an upper-triangular matrix to discover correlations above 90% between columns.

ThriftEats | Winner of DubHacks Next Most Commercially Viable Prize

Oct 2022

- Developed a full-stack website aiming to minimize spending by suggesting recipes based on current deals, and streamlining the grocery budgeting and shopping process.
- Learned and utilized Figma to design web pages, and implemented and integrated a JavaScript back-end to fetch coupon details and other relevant information from third-party APIs.
- Designed a recipe recommendation system to maximize ingredient deals to reduce spending.

Extracurriculars

Washington Hyperloop | Controls Team Software Engineer

Nov 2022 - Present

- Worked with a team of engineers and developers to craft a robotic navigation system for a Tunnel Boring Machine built for the Not-A-Boring Competition.

Technical Skills

- **Programming Languages:** Python, Java, JavaScript, TypeScript, HTML/CSS, SQL, RStudio, C, Matlab
- **Frameworks/Libraries:** NumPy, Pandas, Scikit-Learn, TensorFlow, Node.js, React, Bootstrap, D3.js, Next.js, TailwindCSS
- **Technologies:** Git, Linux/Ubuntu, Vim, Unity, REST API, Figma, Arduino, Azure