Soham Shirish Raut

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Education

University of Washington, Seattle   **Expected Graduation: Jun 2025**
Bachelor of Science in Computer Science

- Junior, Direct Admit to the Allen School of Computer Science and Engineering, GPA: 3.90, 6 x 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

- Working on the project Automatically Decomposing D3 Visualizations, with the aim of decomposing complex D3.js code into modular components and making D3 programming more beginner friendly.
- Designed reusable and re-mixable template components from existing D3 code examples to facilitate the creation of customizable visualizations, after developing strategies for different visualization types.
- Spearheaded the development of the first D3 code decomposer and generalized the code component generation model across multiple 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 Candent Alumini, 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

SPOT | *Honorable Mention, DubHacks 2023 Most Viable Startup Prize*   **Oct 2023**

- Developed an automated cloud agnostic deployment system featuring a cost optimizer and an LLM-based recommendation system, utilizing the OpenAI API and Pulumi for optimized resource deployment.
- Pioneered the advancement of a cutting-edge resource specification recommender, seamlessly leveraging ChatGPT to interpret high-level user queries to deliver tailored solutions for optimal resource utilization.
- Incorporated pricing APIs from Google Cloud, AWS, and Azure to ascertain the most cost-effective solution, harmonizing seamlessly with the resources suggested by the resource recommender.

ThriftEats | *Winner, DubHacks 2022 Most Commercially Viable Prize*   **Oct 2022**

- Crafted a full-stack website designed to reduce spending by suggesting recipes based on current deals, while also streamlining the grocery budgeting and shopping process by maximizing savings.
- Gained expertise in Figma for web page design and seamlessly executed the integration of a JavaScript back-end, enabling the retrieval of coupon details and other relevant information from third-party APIs.
- Devised a recipe recommendation system to capitalize on ingredient deals, effectively maximizing savings for users.

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:** Pandas, Scikit-Learn, TensorFlow, Node.js, React, Bootstrap, D3.js, Next.js, Tailwind CSS
- **Technologies:** Git, Linux/Ubuntu, Vim, Unity, REST API, Figma, Arduino, Azure