

Vani Ramesh

 vaniramesh.com  vanir2@illinois.edu  linkedin.com/in/vani-ramesh  github.com/share-a-byte

Education

University of Illinois at Urbana-Champaign

Expected May 2026

Bachelor of Science in Computer Science (GPA: 4.0)

Urbana, IL

- **Relevant Coursework:** Probability & Statistics for Machine Learning, Data Structures and Algorithms, Discrete Math

Technical Skills

Languages: Python, C++, Java, Javascript, Typescript, Dart, HTML/CSS

Technologies: React.js, Node.js, Next.js, PostgreSQL, Docker, Jenkins, GitLab CI/CD, MySQL, MongoDB, TensorFlow, NLP, Alteryx, Azure, AWS, Grafana, Linux, Power BI, Tableau, Django, Flutter, Firebase, Git, TailwindCSS

Experience

Natra

May 2022 – Present

Founder/App Developer

Naperville, IL

- Designed and developed iOS and Android sustainability app with **1100+** users using Flutter framework
- Helped users save **2000+** kg CO₂ emissions, **300,000+** gallons of water, **1,800+** kg solid waste
- Developed and integrated **RESTful APIs** to retrieve and display real-time environmental data and statistics
- Implemented secure user authentication system, providing personalized experiences based on user permissions

Ensaras

July 2024 – Present

Machine Learning Intern

Urbana, IL

- Implemented robust **anomaly detection** algorithms and integrated with a **CI/CD pipeline using GitLab**, achieving a 20% reduction in response time to critical issues
- Developed and maintained interactive Grafana dashboards for **real-time monitoring and visualization** of wastewater metrics, drastically improving plant **efficiency and sustainability**
- Created and integrated a **React** dashboard and **Django API** into the existing codebase, enhancing data accessibility

California ISO

May 2024 – July 2024

Software Engineering Intern

Urbana, IL

- Developed versatile script using **Python** and **AVEVA PI Web API** to identify and troubleshoot missing data tags, enhancing data integrity and reliability across **55,000+ entries**
- Streamlined validation and troubleshooting by processing **large datasets**, generating **comprehensive logs**, and enabling efficient analysis, reducing error detection time by **40%**

Versogen

June 2023 - Present

Software Engineer Intern

Wilmington, DE

- Used **PowerBI** to plot global statistic data and performance indicators, converting raw data into actionable insights
- Automated **data analysis** and **visualization** for electrochemical experiments using matplotlib and numpy
- Collaborated with management to set up scalable on-prem **SQL** database, organizing **1000s** of files of R&D data
- Utilized **React** and **Node.js** to design, develop and maintain a **full-stack**, responsive admin dashboard, integrating **Azure AD** single sign-on

Projects

GreenThread | *GPT-4, React.js, Next.js, Express.js, Python*

- Developed a robust **web parser** using Python and Selenium, and seamlessly integrated with a responsive frontend interface
- Utilized **GPT-4** for natural language processing tasks to create an insightful and customized user experience
- **Winner** of ClimateBase Hackathon, demonstrating practical application of technology for climate solutions

Predicting Carbonation Depth of Cement | *TensorFlow, Scikit-Learn, PyTorch*

- Utilized regression algorithms and **neural networks**, using **Tensorflow**, to analyze factors impacting CO₂ uptake in the cement production process
- Visualized experimental data and analyzed trends to develop an **85%** accurate prediction model of carbonation depth