Ryan Alexander Ragasa

Preferred: Ryan Ragasa

[LinkedIn](#) | [GitHub](#) | [Personal Portfolio](#)

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EDUCATION

Virginia Tech, Blacksburg, VA   Aug 2019 – May 2024
B.S. in Chemical Engineering (Cum Laude)
Minor: Computer Science   GPA: 3.46

SKILLS SUMMARY

- **Languages**:   Java, JavaScript, HTML, CSS, Python, MATLAB, C#
- **Frameworks/Libraries**:   Bootstrap, React, Express, Node
- **Developer Tools**:   VS Code, Eclipse, Unity, Git, Linux, Bash, Firebase, Jupyter
- **Soft Skills**:   Collaboration, project management, excellent communication

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PROJECTS

Front-End Projects | *JavaScript*
- Created five projects using React.js and bootstrap with Vite as part of a static single page application. The projects included building a random quote machine, markdown previewer, drum machine, calculator, and pomodoro timer.
- Deployed through GitHub Pages for the hosting service.

ChE Machine Learning | *Python*
- Developed a random forest regressor in Python to predict gas holdup in a bubble column with 14 features, achieving 95% accuracy. I enhanced model efficiency through dimensionality reduction and optimization of model parameters.
- Analyzed feature importance and presented insights on extending models' relevance to industrial processes and academic research.

Personal Website | *HTML, CSS, JavaScript*
- Created a personal portfolio website with vanilla HTML, CSS, and JavaScript to showcase my skills in chemical engineering and web development.
- Deployed through Firebase for the hosting service and Cloudflare for custom domain.

WORK EXPERIENCE

Virginia Tech, Blacksburg, VA   May 2024 – July 2024
Undergraduate Research Assistant
- I created a presentation on equivariant graph neural networks for Dr. Hongliang Xin's research group, focusing on the Allegro and Mace models used in computational chemistry to support non-adiabatic molecular dynamics simulations.

WestRock Company, Richmond, VA   Sep 2022 – Dec 2022
Research & Development Co-Op
- I worked in a team-oriented environment focusing on two major projects. The first project included support for usage of micro-fibrillated cellulose at paper mills by per. The second project included characterizing contents of recyclable paper by starch, ash, organic, and moisture contents to create a recyclability database.

Evonik, Hopewell, VA   May 2022 – Aug 2022
Plant Engineering Intern
- I worked in a high-paced environment where I coordinated with operations, engineers, and maintenance to complete tasks and assignments. I supported and developed production documentation such as piping and instrumentation diagrams and process hazard analysis.