Ricky Jones

711 W Main St ● Gladding Residence Center, Rm 08136-A ● Richmond, VA 23220
jonesr30@vcu.edu ● https://www.ricky-jones.com/ ● (804) 814-9516

Objective

Dedicated engineering student with several years of independent experience in programming, computer-aided design, and product development. Focused on building connections with professionals throughout the RVA area and strengthening my skills in a fast-paced industry. I'm quick to adapt, fantastic at communicating and working in a team environment, and I take pride in my meticulous approach to problem solving. I am well-versed in CAD software such as SolidWorks, several programming languages including Java, Python, and C++, and I have wide experience across a number of leadership roles and cooperating in a team environment. Seeking an internship or co-op position to broaden my experience and meet professionals in my field.

Education

Virginia Commonwealth University, Richmond, VA — Expected Graduation: May 2027
Bachelor of Science in Mechanical Engineering and Physics
GPA: 4.0

Relevant Courses

Engineering Statics (EGMN 102)
Engineering Visualization and CAD (EGMN 110)
Calculus I and II (MATH 200 & 201)
General Chemistry I and II (CHEM 101 & 102)
Differential Equations (MATH 301)
University Physics I and II (PHYS 207 & 208)
Intro to Programming (CMSC 255)

Skills

Interpersonal skills: Teamwork, leadership, effective communication, conflict mediation and resolution
Computer skills: SolidWorks, MatPlotLib, Firebase, Git and GitHub, Microsoft 365 products including Excel
Programming languages: Java, JavaScript/TypeScript, Python, HTML/CSS, C++, SQL, Go
Technical skills: Experience working with power tools, 3D modeling and printing, interpreting/creating control and system diagrams, experienced with Arduino and Raspberry Pi development

Relevant Experience

Engineering Intern, Jefferson Lab Particle Accelerator, Newport News, Virginia (June 2022 – July 2022)

- Analyzed dozens of controls and system diagrams from the facility's low-conductivity water system and cooling towers as well as their associated sensors. Applied failure analysis of each system along several points of failure to determine criteria for a predictive maintenance system.
- Researched low-conductivity water systems found at other particle accelerator systems and commercial projects to determine historical points of failure to factor into analysis. Compiled research into comprehensive documentation of past failures and their associated predictive factors.
- Effectively communicated with mentor to ensure both quality of work and specifications for final product. Recognized by mentor for ability to navigate conflict and resolve miscommunications quickly and amicably.
- Developed a major systems report for Honeywell, a controls subcontractor working with the lab, containing the findings from the failure analysis. Recognized by supervisors at Honeywell for attention to detail, depth of analysis, and laying an effective foundation for a predictive maintenance system.

Academic Projects

Flange and Pulley CAD Design, Engineering Visualization, VCU, Richmond, VA Aug 2023– Sep 2023

- Modeled both a flange and pulley body in SolidWorks according to design specifications, material parameters, and required dimensions.
- Ensured use of non-destructive design to iteratively revise original design across a variety of different permutations.

"Tabulate" Class Planner, Clover Hill High School, Midlothian VA Jan 2023– May 2023

- Programmed an easy-to-use website for planning university courses over four years. Ensures prerequisites and corequisites are met, as well as credit hour limitations and credit received from courses taken in high school. Utilizes client-side storage for saving data.
- Developed as part of an independent study course. Publicly available at https://ducksincoming.github.com/tabulate.html

"QuickSign" Chrome Extension, Clover Hill High School, Midlothian, VA Sep 2022– Jan 2023

- Developed a chrome extension to quickly sign up for websites using a temporary email address. Created as a part of an independent study course. Recognized by professor for technical depth of project.

Independent Projects

"Cheaplisafe" Home Security System May 2022– Jul 2022

- Developed multiple security devices to be used together utilizing a central receiver component using Arduino, designed to be low-cost but highly effective
- System includes a central alarm unit with passcode override, door open sensor, glass break alarm, wireless security camera with motion detection, motion sensor, and panic button. All components communicate wirelessly with the central unit in a modular, expandable fashion.

"Morse Tapper" Speech Translator Jan 2022– Feb 2022

- Wearable device that translates speech into morse code through physical taps on the user's arm. Allows for communication between deaf and hearing individuals without the need for sign language.
- Furthered skills with arduino, speech recognition and processing, and designing for user experience. Utilized 3D printed components to ensure flexibility with design specifications.

Other Work Experience

Cashier/Food Prep, Mission BBQ, Midlothian, VA July 2022 – August 2023

- Handled orders, processed payments, greeted and interacted with customers throughout their experience.
- Prepared complex dishes in a high-stress environment. Exercised effective communication and conflict resolution with coworkers.
- Lead several training sessions with employees. Recognized by management for proficiency in training new hires and establishing their underlying responsibilities in a cooperative, accommodative manner.

Student Organizations, or Activities

- Founder and President, Technology-Student Association, Midlothian, VA Sep 2021 – Jun 2022
- Mechanical Team Lead, HyperLabs at VCU, Richmond, VA Aug 2023 – Present
- Software Developer, RamDev, Richmond VA Aug 2023 – Present
- Competition Team Member, ASME, Richmond, VA Aug 2023 – Present
- Team Member, VCU IEEE Team, Richmond, VA Sep 2023 – Present