

Joshua Markle

757-784-3838 | joshuamarkle25@gmail.com | Charlottesville, Virginia | joshuamarkle.com

EDUCATION

University of Virginia

Bachelor of Science – Computer Science & Electrical Engineering | 2024 – Present

Activities & Leadership:

- Team Captain ACM Competitive Programming Team
 - 1st Place ICPC Mid-Atlantic USA Regional Div. 2 (2024)

The Governors School for Science & Technology High School (GSST)

High School Diploma, Computer Science Strand | GPA 4.0 | 2022 – 2024

EXPERIENCE

Python Programming Club President | GSST | 2022 – 2024

- Taught 30+ members data structures, algorithms, Git, and competitive programming topics
- Hosted 2 internal contests w/ 60+ participants; Led oversight of contests (AWS & DOMJudge)

Game Development Club President & Founder | GSST | 2023 – 2024

- Grew membership to 20 students; 10+ workshops; 5 final games showcased as school event

Tech Lead Volunteer | Yorkminster Presbyterian Church, Yorktown | 2023

- Setup stage lighting, audio systems, and music controls; Led/trained team of 4

SKILLS

C/C++ | Python | JavaScript | GNU Bash | x86 ASM Basics | Linux | Git | Vim

PROJECTS

Milestone | [Flutter Mobile App](#)

- An app that aids student drivers to get their driver's license; Present app to Congress in 2023

Keyboard Layout Optimization Research | [OpenGL Software](#)

- A software that uses AI to visualize and optimize layouts for any physical keyboard
Written in C++ and visualized with OpenGL; New layouts w/ 200% improvement over QWERTY

Joshuamarkle.com | [Personal Website](#)

- A personal website to showcase skills, work, and experience written in HTML, CSS, and JS

Fluid Simulation | [OpenGL Simulation](#)

- A particle based fluid simulation in 3D written in C++ and visualized with OpenGL

Arch Linux | [Dotfiles](#)

- Created a custom install script for daily use; configured for HomeAssistant, PiHole, & Apache

AWARDS

Winner of the Congressional App Challenge | (w/ Milestone) | 2023

- Selected as one of 374 national winners out of 11,334 participants
- Present app to congressional symposium; Met with VA 1st district representative, Rob Wittman

Xerox Award for Innovation and Information Technology | University of Rochester | 2023

- Award for notable achievements in the field of new technology + \$20,000 scholarship

Outstanding Research Award | NHREC Annual Science Fair | 2023

- Winning science fair project, Humans vs. AI, designed to test pattern recognition differences between humans and neural networks trained with reinforcement learning (PPO) written in C#