BRYCE CULLEN

Schedule a Call

Embedded Software Engineer
brycec23@vt.edu • (860) 576-4187 • brycecullen.dev • linkedin.com/in/bryce-cullen

EDUCATION

Virginia Tech, College of Engineering, Blacksburg, VA — May 2023
Bachelor of Science, Computer Science
Cum Laude

RELEVANT EXPERIENCE

IQVIA Inc., Durham, NC, *Software Development Intern* — May 2021-Aug 2021
- Implemented UI/UX features in Lightning Web Components, JavaScript, and HTML5 to enhance client satisfaction.
- Spearheaded the automation of repetitive tasks in the developer workflow, resulting in a 30% increase in developer productivity and reduced wait times.
- Collaborated in an Agile development team to build a large-scale customer engagement software based on Salesforce.
- Incorporated client feedback to enhance the user interface and overall user experience.

KoBalt Software LLC, Hartford, CT, *Founder & Software Engineer* — Aug 2022-Apr 2023
- Co-founded a software company with a focus on creating innovative applications.
- Led the technical decision-making process and took initiative in driving the development and implementation of the product.
- Developed an iOS app in Swift and Python, utilizing REST APIs and Core Data.
- Followed the Software Development Life Cycle (SDLC) to engineer the product from design to deployment.

Virginia Tech Student-Athlete Academic Support Services, Blacksburg, VA, *Academic Tutor* — Sep 2022-Dec 2022
- Tutored 10 student-athletes weekly in calculus and computer science, fostering their understanding of complex concepts.
- Developed personalized learning plans and study materials, effectively communicating technical principles.

PROJECTS

Personal Web and Video Server — Dec 2022
- Built a multithreaded personal web server capable of serving files, streaming MP4 videos, and providing token-based authentication API.
- Developed the backend in C and frontend in React and containerized the application using Docker.

Fork/Join Framework — Oct 2022
- Developed a resource-efficient fork/join framework using C and a work-stealing approach.
- Implemented a thread pool for dynamic task parallelism, enabling scalable execution of divide-and-conquer algorithms.
- Utilized futures for asynchronous computation, ensuring efficient utilization of multicore systems.

Custom Unix Shell — Sep 2022
- Developed a customizable shell in C using POSIX threads, implementing process management and job control.
- Implemented features such as executing user commands, handling foreground and background jobs, and managing status changes of jobs via signal handling.

TECHNICAL SKILLS

Languages: C/C++, Java, Python, x86-64 Assembly
Cloud: REST APIs, GraphQL MySQL, Postgres, AWS Amplify, Amazon S3
Developer Tools: Git, JIRA, gdb
Other: Linux/Unix, Docker, TCP/IP, Bash, Valgrind, multithreading, memory management