Derek Curry

304-951-1703 | djcurry@ncsu.edu | linkedin.com/in/derekcurryncsu/ | derekcurrycompsci.com/

EXPERIENCE

HCL Technology | *Go, Echo, Kubernetes, GCP, Docker, PostgresQL, API*　　　May 2023 – May 2024
Software Engineer Intern　　　*Cary, NC*
- Developed a service for querying Kubernetes cluster usage across environments to reduce overhead where possible, using Prometheus, Docker, and GCP, alongside another intern
- Designed and developed an API for creating managed CloudSQL Instances with configurable automated backups for a product team
- Designed and developed a generic dependencies API for Kubernetes cluster Helm dependencies
- Initially summer internship, received extension for fall semester, then spring semester

Codecademy | *Go, Web Development, Pedagogy, Technical Writing*　　　April 2024 – November 2024
Content Contributor　　　*Remote*
- Experience designing interactive lessons and quizzes reinforcing learning and increasing learner retention rates
- Specialize in turning complex GoLang and web development concepts into engaging educational content for professional audiences
- Advanced expertise in GoLang and web technologies by translating software practices into educational materials

EDUCATION

North Carolina State University　　　August 2021 – May 2025
Bachelor of Science in Computer Science, Bachelor of Science in Mathematics　　　*Raleigh, NC*
- *Major GPA 4.0*
- *Cumulative GPA 3.93*
- *Dean's List*
- *Accelerated Master's in Computer Science starting Fall 2025*

TECHNICAL SKILLS

Languages: Java, C, C++, Go, JavaScript, TypeScript, HTML/CSS, SQL
Frameworks: Kubernetes, Bootstrap, Node.js, Angular, JUnit, PostgresQL, RESTful, Jenkins, OpenMP, Helm
Developer Tools: Git, Docker, Eclipse, Google Cloud Platform, Doxygen, Visual Studio, Linux, JetBrains Tools

PROJECTS

Heat Equation Visualization | *C++, OpenMP, OpenGL, Eigen, Doxygen, Linear Algebra*March 2024 – April 2024
- Developed an interactive heat transfer simulator using C++ and OpenMP for a fast, multi-threaded application
- Implemented advanced numerical methods including FEM and AMG for increased solving time
- Implemented design patterns such as MVC, Pub/Sub, and Thread Pool for a maintainable and scalable system
- Designed a Pub/Sub events system to decouple UI and computational logic, enabling asynchronous updates and event-driven interaction

Pathfinding Visualization | *Go, WebAssembly, HTML, CSS, JavaScript*　　　July 2023 – August 2023
- Developed a browser app combining Go and Angular with WebAssembly, to demonstrate pathfinding algorithms
- Used Model-View-Controller (MVC) design pattern for clear encapsulation and shared memory for communication
- Object-Oriented design with thorough error checking and handling for a reliable, modular application
- Designed a flexible algorithm interface, enabling easy addition of new algorithms, currently A* and Dijkstra

EXTRACURRICULAR

Tesla Rebuild　　　June 2022 – June 2023
- Purchased a crashed Tesla Model 3 to repair and learn how EVs are designed
- Great exercise in problem-solving – resolved body, mechanical, electrical, and software problems with little to no information or proper tools
- Sparked interest in reverse engineering the car computer after learning about all of the systems it manages

Eagle Scout　　　August 2016 – August 2021
- Planned a community project – fundraising, creating design plans, procuring materials, and leading a group to create eyeglass collection boxes to place around the town of Apex
- Planned community clean up projects, provided supplies, and oversaw safety and risk management