Spencer Bone

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SKILLS AND TOOLS

Languages: Java, C, Kotlin, Scala
Tools: GitHub, Docker, Android Development Studio, RISC-V, Eclipse Memory Analyzer
Skills: OOP, Functional Programming, App Development, OS, Full-stack, Testing, Front-End

PROJECTS

PintOS – Updating a Basic OS   January 2024–Present
- Fluid communication between four team members utilizing version control via GitHub.
- Implementing additions to a basic OS in C (including process scheduling, implementing system calls, advancing the file system, etc.)
- Process Scheduling entailed making a timer for threads and CPU balancing between processors to reduce idle times of executing threads. Implementing system calls involved putting the call's arguments on a child processes stack and taking those arguments to execute specific system calls.

Fancy Gallery – Android Photo Database App   November 2023–December 2023
- A Solo Project in Kotlin in Android Development Studio
- Networking and an SQL database was used to make it possible to see photos uploaded live to an online database website
- Utilized multiple fragments to make it possible to switch between landscape and portrait, as well as a fragment for a geographical location (obtained from photos in database to show where photos were taken)

Book-E – React Bookstore Website   August 2024 – December 2024
- Use of Figma, CSS, and HTML to construct basic framework and design.
- Programming in JavaScript, React, and React Hooks to develop the design into a more intricate and user-friendly site with more complex behavior.
- Using MySQL and DAO Patterns for database structure and management for the books listed

EXPERIENCE

Graduate Teacher's Assistant   *Virginia Tech, VA*
CS Bridge Program   *August 2024–May 2025*
- Assisted students with the set-up and use of Eclipse IDE for Java programming.
- Taught students basic programming structures (arrays, lists, queues, stacks) and OOP in Java.

Undergraduate Teacher's Assistant   *Virginia Tech, VA*
CS3304 Comparative Languages   *August 2023–May 2024*
- Aided students in their learning of different programming languages such as Pascal, C++, PROLOG, Golang, Scala, Haskell, and Ruby
- Helped students learn important concepts like functional programming, parse trees, interpreters, and in-depth recursion which were paired with languages that were better tools for such paradigm (i.e. Scala for functional programming).

EDUCATION

Virginia Polytechnic Institute and State University (Virginia Tech)   *Blacksburg, VA*
Bachelor of Engineering in Computer Science, Minor in Economics and Mathematics   *August 2020-May 2024*
Cumulative GPA: 3.73 / 4.00   Major GPA: 3.80 / 4.00   *Dean's List: Fall 2020 – Present*

Virginia Polytechnic Institute and State University (Virginia Tech)   *Blacksburg, VA*
Masters of Engineering, Concentrations: Software Engineering/Networking   *August 2024–May 2025*

EXTRAS

Outside of School Hobbies: Weightlifting, Bouldering, Video Games, Manga
Favorite Electives: Quantum Computation, Cryptography, Computer Music, Network Security