Jalal Ahmad

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EDUCATION

University of Maryland - College Park   **Expected: May 2026**
Bachelor of Science, Computer Science
Relevant Coursework: Object Oriented Programming, Design/Analysis of Algorithms, Advanced Data Structures, Computer Systems, Programming Languages Paradigms, Full Stack Development, Data Science

PROJECTS

Full-Stack Applications:

Snippetbox - Based on "Let's Go!" by Alex Edwards (Current)
- Developing a fast and secure snippet-sharing application using Golang. The project includes features for pasting and sharing text snippets, with a focus on performance and security similar to GitHub Gists.
    - Skills: Golang, MySQL, Session Management, HTTPS Security, Encryption, Unit Testing.

Recipe Application (August 2024)
- A full-stack application allowing users to securely register, log in, and perform CRUD operations on personal and community recipe collections.
    - Skills: MongoDB/Mongoose, Next.js (React), Node.js (Express), RestAPI, JWT Authentication, TailwindCSS.

BoredomBuddy (May 2024)
- An activity generator application that integrates with the 'BoredAPI'. Users can log in, generate activities, and track past activity history in a NoSQL database.
    - Skills: Node.js (Express), API Integration, MongoDB, HTML/CSS, Templating (EJS)

University Projects:

MicroCaml Programming Language (2024)
- Developed a dynamically-typed version of OCaml. Contributed to the creation of a lexer, parser, interpreter, optimizer, and type checker for this custom language.
    - Skills: OCaml, Functional Programming, Program Language Implementation.

Blueberry Crisp CPU (2023)
- Designed functions to manipulate a fictional processor that accesses memory, enhancing understanding of low-level computing.
    - Skills: ANSI C. Bit Manipulation and Masking. Pointers. Hardware and Assembly concepts.

Orders Processor (2022)
- A multithreaded program to process purchase orders from multiple text files, generating order summaries using concurrent processing techniques.
    - Skills: Java. Multithreading and Concurrency. JUnit. OOP Design. Data Structures.

CERTIFICATIONS

Accenture Software Engineering Job Simulation (September 2024)
- Acquired practical knowledge of industry software practices through implementing a SpringBoot search controller, automating builds with Continuous Integration (CI), and gaining familiarity with Agile development methodologies.

CodePath Intermediate Technical Interview Prep (August 2024)
- Completed a 10-week program solving 80+ LeetCode problems, honing data structures, algorithms, and technical interview skills.

CodePath Intermediate Cybersecurity (May 2024)
- Gained hands-on experience with cybersecurity tools/techniques for threat detection and system protection.

SKILLS

Programming: Java, C/C++, Python, Java/TypeScript, OCaml, Rust, Golang.

Technologies: Next.js (React), Node.js, MongoDB, MySQL, Flask, SpringBoot, Git, Linux, Wireshark, Splunk.

Soft Skills: Engagement and Collaboration. Organization and Coordination. Quick Learner and Proactive.