# JASON CHEN

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## EDUCATION

**University of Maryland** — Aug 2020 - May 2024
B.S. in Computer Science — *GPA: 3.48*
*Relevant Coursework:* Object-Oriented Programming | Data Structures & Algorithms | Advanced Data Structures | Database Design | Programming Handheld Systems | Intro to Artificial Intelligence | Computer & Network Security

## EXPERIENCE

**Booz Allen Hamilton | Management Consulting Company | Sit(x) Team** — Oct 2024 - Present
*Mobile Developer | Flutter, Dart, Git* — *McLean, VA*
· Enhanced critical mobile application infrastructure, contributing **5,000+** lines of production code while resolving major system bugs in COT message parsing, file storage, and database synchronization, resulting in **40%** reduction in crash reports
· Engineered map-based drawing toolkit with geofencing features, delivering real-time location tracking, comprehensive event logging, and automated alerts that enhances situational awareness and streamlined communication for field operations
· Designed and deployed file download management system with progress tracking and caching, reducing file access time by **30%**
· Implemented comprehensive localization features for the Sit(x) mobile app, enabling multi-language support

**Hailbytes | Cloud Security Company** — Jun 2023 - Aug 2023
*Intern | Wordpress, SEO Copywriting* — *Laurel, MD*
· Utilized WordPress and SEO Copywriting to create dozens of articles that garnered hundreds of views on the company website
· Analyzed and implemented WordPress plugins that significantly reduced website content load time from **2.5s to 950 ms**, raising Hailbytes's GTmetrix rating from **B to A**

## LEADERSHIP AND PROJECTS

**MyCookBook** — Jun 2024 - Aug 2024
*Full Stack Web Application | Next.js, NextAuth.js, Typescript, Tailwind, PostgreSQl, Prisma*
· Developed a dynamic full-stack recipe finder and builder app using Typescript, Next.js, and Tailwind enabling users to create, search, and delete recipes within an aesthetic interface
· Implemented robust backend services using NextAuth.js, PostgreSQL, Prisma, TanStack Query, and Axios to handle data management, authentication, API calls, and scalability, adding a layer of personalization and security to the app
· Designed an in-depth filter system for users to filter recipes by difficulty, price, and nutrients

**BookWorm** — Apr 2024 - May 2024
*Programming Handheld Systems | Flutter, Dart, Collaborative Development*
· Spearheaded and collaborated with 3 classmates on Bookworm, an intuitive book organizer Flutter mobile application that enhances the reading experience by allowing users to record, organize, and reflect on their readings
· Integrated note-taking, word definition lookups, and personalized libraries using a dictionary and Google Books API and state manipulation that is all wrapped in an aesthetic and user-friendly interface

**Cryptographic Protocol Analysis and Exploitation** — Nov 2023 - Dec 2023
*Computer & Network Security | Python, Binary Data Manipulation, Block Cipher Analysis*
· Analyzed encrypted network traffic from a banking application to discover cryptographic weaknesses, successfully altering financial transactions and redirecting payments through pattern recognition and ciphertext manipulation techniques
· Developed binary stream parser in Python that processed 16-byte cipher blocks, differentiating between variable-length messages (2-block balance requests, 5-block transfers, 4-block invoices) through systematic validation of field constraints
· Implemented exhaustive parsing algorithm testing all six possible transaction type orderings to reverse-engineer message protocols from ECB-encrypted data, building pattern dictionaries to track recurring ciphertext blocks across sessions

**Nelovo Filesystem** — Apr 2022 - May 2022
*Introduction to Computer Systems | C, Memory Management*
· Engineered a simulated file system in C using dynamic memory allocation and deallocation
· Designed a linked list data structure to efficiently manage file creation, deletion, and movement

## TECHNICAL SKILLS

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|---|---|
| **Programming** | Python, HTML/CSS, C, Dart, Java, JavaScript, TypeScript, PHP, Ruby, Ocaml, Node |
| **Frameworks** | (Next.js, PostgresSQL) |
| **Database** | PostgreSQL, MongoDB, MySQL |
| **DevOps** | Git, Jira |