

Affan Malik

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EDUCATION

University of Maryland

Bachelor of Science in Computer Science
ACES Honors College, Cybersecurity Minor

College Park, MD

Expected: May 2025

- GPA: 3.5/4.0
- Relevant Coursework: Deep Learning, Parallel Computing, Advanced Algorithms, Advanced Data Structures, Natural Language Processing, Secure Web App Development, Data Science, Project Management, Object-Oriented Programming, Computer Systems

WORK EXPERIENCE

Amazon

Software Developer Engineer Intern

May 2024 - Aug 2024

Arlington, VA

- Designed, developed, and deployed a personalized ads tracking system for Prime Video/Twitch's Ad Server, integrated into the Java backend to detect issues with ads playback and EU privacy regulations
- Created a frontend dashboard using TypeScript to sound alarms and display graphs to detect issues with ad personalization, preventing fines of up to 4% annual revenue
- Leveraged Git, AWS tools, CI/CD pipelines, managing code reviews, resolving tickets, unit tests, and code documentation, contributing to an efficient development lifecycle

UPS

Software Engineer Co-op

July 2022 - May 2024

Baltimore, MD

- Developed a multi-threaded C# .NET desktop application to validate UPS.com multi-language shipping, reducing debugging time by 94% from 8+ hours to <30 minutes
- Spearheaded the modernization of UPS's package shipping interpreter by developing a C# .NET Windows Forms application and GUI to parse and store shipping data
- Developed a HTML parser in C# to enhance the accessibility of UPS.com help documents

PROJECTS

Web Server Attack - Cybersecurity Research

April 2024

- Deployed high-interaction honeypots on Apache, Nginx, Tornado, and Cowboy web servers to meticulously track and analyze attacker behavior at various security levels
- Performed comprehensive data analysis and statistical tests on attack patterns, collaborating with a team of four to drive strategic security research

Timeline - Social Media Platform

November 2023

- Built a full stack social media platform leveraging Python, Flask, and MongoDB
- Implemented user authentication, user profiles, a real-time feed, interactive posts, and search
- Gained extensive experience in responsive web design, route creation and form handling

MovieReview - Web Application

May 2023

- Developed a responsive movie review site with React.js and HTML/CSS for a user-friendly interface
- Implemented backend with JavaScript, Express.js, Node.js, MongoDB and MovieDBs RESTful API

MicroCaml - Dynamic Programming Language

April 2023

- Developed a functional lexer, parser, and interpreter with dynamic runtime type checking, utilizing operational semantics and context-free grammars for efficient language processing and interpretation

TECHNICAL SKILLS

Languages: Java, Python, C#, C++, C, TypeScript, JavaScript, Ruby, OCaml, Rust

Frameworks: Flask, .NET, React.js, Node.js, Express.js

Libraries: OpenMP, NumPy, Pandas, Scikit-learn, Matplotlib, SciPy

Developer Tools: Git/GitHub, Docker, Unix Shell, Visual Studio