

# Alex Shrestha

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## Education

### University of Maryland College Park

Expected May 2027

Bachelor of Science in Computer Science, Minor in Economics | GPA: 3.8

Banneker/Key Scholar; Cybersecurity (ACES) Honors College

**Courses:** Data Structures, Algorithms, Object-Oriented Prog., Computer Security, Data Science, Linear Algebra, Calc

## Work Experience

### Leidos

Edgewood, MD

Software Engineering Intern

Jun. 2025 – Aug. 2025

- Engineered an end-to-end facial comparison service in C#/.NET enhancing identity verification accuracy by over 30% and utilized named pipe communication to enable secure, real-time image transfer between client and server
- Saved \$10,000s annually with in-house hosted background service, eliminating dependency on third-party services and accelerating program-critical project 25% faster than planned, achieving key milestones ahead of schedule
- Built robust unit tests with MSTest, achieving >90% coverage and reducing deployment defects once in production
- Documented development lifecycle and user guide to enable simple access and to main integrity post-handoff
- Delivered 6 interactive Power BI reports visualizing complex data enabling data-driven business decisions

### Dalex Softworks Holdings

Remote

Software Engineering Intern

Jun. 2025 – Present

- Developing AI-powered job applications by generating tailored resumes and cover letters for each specific role
- Building features to support dynamic job boards with personalized data with React, Python, Flask and MongoDB
- Operating directly with the CEO in a fast-paced environment to coordinate strategic initiatives and deliverables

### Northrop Grumman

Linthicum, MD

Software Engineering Intern

Jun. 2024 - Aug. 2024

- Led development for team's website with HTML/CSS & JS, boosting awareness of key services for 100s of engineers
- Streamlined 20+ steps and cut process time 60% by developing an automated, centralized app in PowerApps
- Coordinated weekly cross-functional meetings to align project direction, receive feedback and present updates
- Presented technical results of both projects to 75 VPs and members to showcase work and pass ideas off to others

## Project Experience

### Breakerspace Research | Cybersecurity Research Assistant @ UMD

Jan. 2025 – Present

- Investigating reports of romance scams to identify gaps in literature and form suggestions to mitigate future scams
- Developing an automated web scraping tool in Python to collect and process account information with API requests
- Analyzing 20,000+ profiles to detect common features in fraudulent accounts, improving accuracy by >20%

### US News Project Team | Full Stack Engineer @ UMD

Sep. 2024 – May 2025

- Accelerated efficiency by 50% automating notebook creation with Flask endpoints and parameterized templates
- Converted static PDFs to dynamic documents simplifying access and implemented key interactive site features
- Implemented frontend enhancements with React to optimize the design and support for a robust data pipeline

### Honeypot System | Bash Shell Scripting, Python, Git

Sep. 2024 – Dec. 2024

- Deployed 5 Linux containers receiving 9000+ cyberattacks simulating secure product and network environments
- Automated container lifecycle for 24/7 operation, capturing data with MITM and reducing setup time to minutes
- Leveraged Pandas and Matplotlib to create visualizations for real-time system monitoring and attacker information
- Applied ANOVA and Kruskal-Wallis tests with Statsmodels to identify attacker trends and create recommendations

## Technical Skills

**Languages:** Java, Python, C#, C, JavaScript, TypeScript, SQL, Rust, Bash Shell, HTML/CSS, OCaml, Assembly

**Frameworks:** React, Node.js, Flask, Linux/Unix, .NET, Qiskit, Pandas, NumPy, Matplotlib, JUnit, MSTest, Agile

**Dev Tools:** Git, Postman, MongoDB, MATLAB, PowerShell, GDB, Valgrind, Rest API, JSON, Figma, Jira, Power BI