

Catherine Tomic

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EDUCATION

George Mason University, Fairfax, VA

Bachelor of Science in Computer Science

GPA: 3.67

Aug. 2022 – May 2026

PROJECTS

Metro Live | AWS, HTML/CSS, JavaScript, Node.js, GitHub

June 2025 - July 2025

- Built and deployed a static website using HTML, CSS, and JavaScript, hosted on Amazon S3
- Configured custom domain routing with Route 53 and secured traffic with CloudFront with HTTPS
- Implemented AWS WAF to protect against common web exploits
- Created a serverless backend using API Gateway and AWS Lambda (Node.js) to fetch data from the WMATA API
- Developed CI/CD pipeline with GitHub Actions to automatically sync content with S3 and invalidate the CloudFront cache on push to main branch

PageRank Algorithm Language Conversion | Java, C++

April 2025

- Translated an existing PageRank algorithm from C++ to Java, 100% maintaining identical output
- Adapted low-level memory and pointer operations to Java's object-oriented structure
- Validated algorithm accuracy through test cases and benchmark comparisons

Immigrant Marital Status Change Workflow | Java, JavaFX, Maven, Agile/Scrum

March 2025 - May 2025

- Built a multi-role desktop applications simulating a government service for managing marital status changes of immigrants
- Collaborated in an Agile team to deliver a functional MVP within sprint deadlines
- Implemented form validation and workflow state transitions to support user roles and process flow
- Managed dependencies and builds using Maven

Status Now | React, Tailwind CSS, MySQL

Oct. 2024

- Collaborated on development of a prototype web application during a hackathon to display employee shift status, location, and availability in real time
- Designed and implemented an interactive and visually engaging frontend interface using React and Tailwind CSS
- Supported backend integration with MySQL for data retrieval and management

EXPERIENCE

Technical Consultant Intern

June 2025 – July 2025

Capgemini Government Solutions

McLean, VA

- Gained knowledge about AWS with a hands-on AWS project by building a deploying a static transit-tracking website and completing a Cloud Practitioner Certification prep course
- Participated in AWS Summit 2025, supported booth engagement by assisting with a VR Damage Assessment demo built on AWS.
- Recreated technical architecture diagrams and researched relevant use cases for an RFI led by a senior manager
- Leveraged excel to assist with 3 different operational tasks by building dynamic task trackers

AI Research Intern

June 2024 – July 2024

NuRetail

Tokyo, Japan

- Collaborated with another intern under the CTO during the research and development phase to develop an AI solution
- Co-authored two reports detailing video analysis capabilities, current LLM capabilities, and started outlining process for developing a custom LLM
- Utilized Python for researching video analysis software to track customer behaviors to then utilize AI to find a pattern in the behavior of customers that do not buy any products

TECHNICAL SKILLS

Languages: Java, HTML/CSS, JavaScript, SQL, Python, C/C#

Frameworks: React, Node.js, JUnit, Pytest, TailwindCSS

Developer Tools: Linux/Unix, GitHub, Visual Studio Code, Makefile, Unity, Git

Cloud Platforms: AWS (S3, Route 53, CloudFront, Lambda, API Gateway, WAF)

Methodologies: Agile, Scrum, CI/CD, Test-Driven Development (TDD)