

# Thomas Barry

## Dev-Ops Engineer

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[Portfolio Website](#)

[LinkedIn](#)

### WORK EXPERIENCE

#### Dev-Ops Engineer

01/2024 – Present

##### *Plans and manages DevSecOps automation, deployment of IAC, and software products*

- Designed, built, tested, and deployed ClamAv antivirus scanning solution with 100% scan success
- Iteratively improved product resulting in 90X reduction in scan time and greater security controls
- Tested with upload of 1400 files of varying sizes for scanning with an average completion time of 1s
- Took over poorly coded cloud architected website and significantly improved and modernized UI/UX resulting in 100% positive feedback
- Transitioned the large code base to Terraform and implemented best practices including modularization of code and transitioning away from hard coded values
- Achieved automation and CI/CD in both situations using bash scripts, Terraform, and Python

### PROFESSIONAL EXPERIENCE

- **ClamAv Scanning Solution**
  - Generated 1500+ lines of Terraform code over several months and collaborated with 2 software engineers to tackle problems with the deployment of my solution across various AWS accounts
  - Enabled verbose logging of Lambda functions and mounting of EFS to EC2, accessed securely with Session Manager, for debugging
  - AWS Services Used: Lambda, EventBridge, S3, Cloudwatch, SNS, EFS, EC2, CodeCommit, IAM
  - Tools and technologies used: Terraform, Python, Dockler, Git, AWS CLI, CDKTF
- **Cloud Architected Website**
  - Explored existing codebase/product and introduced optimizations by transitioning code to Terraform, adding dynamic values passed into Lambda functions with environment variables, upgraded old JQuery table to modern DataTable, and transitioned repeated Js code to functions
  - Setup routes to API gateway and passed route information to lambda to load separate websites
  - AWS Services Used: Lambda, IAM, DynamoDb, SNS, Cloudwatch, S3
  - Tools and Technologies Used: HTML, CSS, Javascript, JQuery, Git, Terraform, Python
- **Personal AI Project:**
  - Built fullstack application in free time, designed to help teachers, while pursuing understanding and mastery of industry standard technologies, frameworks, and best practices
  - Connected application to Gemini API to make structured requests to generate focused and tailored teaching materials, such as tests, lesson plans, and activities
  - Enabled authentication with google auth and used an Auth guard to restrict access
  - Brought in 5 users and solicited feedback, building services tailored to solve their problems
  - Responded and solved user's concerns about website bugs, with average completion time of 3 hours, resulting in uptime of about 95%
  - Tools and Technologies: HTML, CSS, Javascript, Typescript, Angular, NodeJs, Sqlite, and Python
- **Kubernetes, Helm, and Docker Learning Project**

### CERTIFICATIONS

- |   |         |
|---|---------|
| • AWS Certified Solutions Architect – Associate | 02/2024 |
| • CompTIA Security+                             | 04/2024 |

### EDUCATION

Bachelor of Science in Computer Science

2019-2023

Graduated with Distinction from University of North Carolina at Chapel Hill

### SKILLS, TECHNOLOGIES, AND EXPERTISE

- **Coding Languages and Frameworks:** Python(Proficient), HTML(Proficient), CSS(Proficient), Java(Proficient), Javascript(Intermediate), NodeJs(Intermediate), Angular(Intermediate), Sqlite/SQL(Entry)
- **Tools:** Terminal (CLI), Visual Studio Code, GitHub (Git), Docker, Junit, Pytest
- **Other:** Terraform, AWS Services, IT/Networking, Linux and scripting, APIs, Version Control, Agile methods