

Marvin Tutt

Full-Stack Engineer

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PROFESSIONAL SUMMARY

Full-Stack Engineer with 3+ years experience in distributed systems and enterprise applications. Experience includes backend development for federal defense contracts (NGA), building microservices architectures, and developing open-source projects. Proficient in Java, Go, and Javascript.

TECHNICAL SKILLS

Languages: C++, Python, Java, Go, JavaScript

Backend: Spring Boot, Quarkus, Node.js, REST APIs, Apache Pulsar, Temporal

Frontend: React, HTML/CSS/JS, Astro, three.js, d3.js

Cloud & DevOps: Docker, Kubernetes, OpenShift, CI/CD, GitHub Actions, GitLab, Cloudflare

Databases: PostgreSQL, MongoDB, MySQL/MariaDB, Redis

AI/ML: MLX, PyTorch, NLP, OCR Processing

Security: OAuth2, JWT, RBAC, Cryptographic Signing, Vault

PROFESSIONAL EXPERIENCE

Caia Tech | Fairfax, VA

CEO & Principal Engineer

March 2024 - Present

- Developed **GitForensics.org**, a guide for using Git's properties for documentation and audit trails

- Built OCR text extraction system processing 600+ historical documents from the Martin Luther King Jr. archives
- Published datasets on Hugging Face for machine learning applications
- Maintained open-source repositories on GitHub

Webhead Tech | San Antonio, TX

Java-Spring Developer (Defense Contract - National Geospatial-Intelligence Agency)
January 2023 - March 2024

- Sole backend developer on project to modernize NGA's monolithic system into microservices
 - Implemented mission management service using Apache Pulsar for messaging and REST APIs for integration
 - Set up CI/CD pipelines with automated testing and OpenShift deployment
 - Integrated with multiple teams for logging, validation, and policy execution services
 - Designed PostgreSQL database schema and API contracts
 - Delivered bi-weekly demonstrations to client stakeholders
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PROJECTS

[GitForensics](#)

Created educational resource explaining how Git's version control features can be used for documentation preservation and transparency.

[MLK Records Archive](#)

OCR processing system for historical document digitization. Extracted text from 600+ documents to create searchable digital archive.

OPEN SOURCE CONTRIBUTIONS

- Transformer development, features such as Varlen attention, Muonclip, RoPE
- Created educational resources and documentation for developers

EDUCATION & SELF-DIRECTED LEARNING

- Studied distributed systems, cryptography, and machine learning through online resources and practical implementation
 - Cloudflare Administrator, Google Cloud, Azure
 - Continuous learning in systems programming, algorithms, and cloud technologies
 - 54 credits toward B.S. in Software Engineering (in progress); self-study in distributed systems, cryptography, and ML.
 - Familiarity with M365 Purview/Vault workflows, basic NIST/CIS control language, and Excel-based workpapers.
 - Professional Scrum Master certification (PSM 1)
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Portfolio: marvintutt.com | **GitHub:** github.com/Caia-Tech |

Research: huggingface.co/CaiaTech