

Rob Tompkins

Seasoned Software Engineer Generalist with 15 years of experience

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SKILLS

Programming Languages: Java, Python, Typescript, Javascript, Go, PHP

Libraries & Frameworks: Spring Boot, Hibernate, JPA, Gradle, Apache Maven, Apache Commons, React, Vue, Node, Angular, Flask, Boto3, Dataframes, JupyterLabs, JupyterNotebooks

Database & Storage: SQL, PostgreSQL, MySQL, MongoDB, Redis

DevOps & Cloud: Kubernetes, Terraform, CloudFormation, Ansible, Amazon Web Services/AWS (S3, EC2, RDS, EKS, CloudFront, API Gateway, CodePipeline, CodeBuild, CodeDeploy, DynamoDB, Route 53), Google Cloud Platform, Docker

Other: Open Source Leader, HTML, CSS, RESTful APIs, TDD, Web3, Git, Nginx, Apache

EXPERIENCE

Apache Software Foundation (volunteer)

Member | March 2016 - Present

VP, Jakarta EE Relations | July 2019 - July 2024

Technologies: Java, Maven, Javascript, HTML

- VP Jakarta EE Relations - established an official relationship between the Apache Software Foundation and the Eclipse Foundation for the sharing of resources.
- Apache Commons PMC member - regularly doing updates and releases to the most used Java libraries in Maven Central.
- Published a Paper in IEEE Software Engineering on Open Source Governance
- Fixed commons-fileupload CVE that caused the Experian Databreach
- Fixed numerous CVEs (critical security vulnerabilities)
- Spoke on numerous occasions on topics related to Open Source Governance, Apache Commons, and the introduction of the Commons Text library
- Wrote and released the first versions of Commons Text

Vertical Relevance (Consulting at FIS)

Staff Consultant | June 2024 - August 2025

Technologies: AWS, Java, Conductor OSS, Harness, EKS, Kubernetes, Gradle, Spring Boot, PostgreSQL

- Created a collection of microservices to service the handling of the ISO 20022 payment protocols.

- Integral part of a team writing a real-time payments engine that became the core of the FIS business model interfacing with TCH and FedNow
- Developed processes and best practices to enable our engineers to efficiently and consistently produce high quality software
- Built all systems related to the storage and maintenance of data for the real-time payments

NASA - Fornax Project (contractor)

Sr. Systems Engineer | May 2023 - April 2024

Technologies: EKS, GitLab, Helm, Python, JupyterLab, Grafana, Prometheus

- Managed the infrastructure for the Fornax Project
- Helped centralize all of the astrophysics external satellite data for NASA in AWS for consumption by the general public (authenticated) using JupyterNotebooks
- Installed the first Grafana and Prometheus installation in the NASA EKS environment at Goddard Space Flight Institute
- Created a collection of ephemeral EC2 GitLab runners based on serverless apis

Naborforce

Principal Software Engineer | December 2022 - May 2023

Technologies: AWS Control Tower, AWS IAM, GCP, GitHub, Python, Terraform, Help Desk, PHP, MySQL

- Migrated all applications from a single AWS account to a multi-account structure for the purposes of having non-prod and prod being separate
- Created a linkage between GitHub and AWS with infrastructure as code to manage all AWS assets, including IAM and AWS SSO
- Architected the entire network for the company both on-premises and in the cloud
- Led efforts as the Chief DevOps engineer leading the way by creating ephemeral GitHub runners based on a terraform project that spawned serverless apis to interface with the GitHub webhooks.
- Saved the company \$100,000 by finding GCloud Credits for telemetry.

Capital One

Sr. Lead Software Engineer | May 2022 - December 2022

Technologies: Java, Gradle, Git, Python, Open Source Office

- Managed Capital One's Open Source Projects
- Architected Capital One's Software Bill of Materials for vulnerability remediation.
- In charge of Capital One's Open Source software policies with regards to licensing

Patch

Chief DevOps Engineer | September 2020 - May 2022

Technologies: AWS, GitHub, CircleCi, GCloud, EKS, Mongo DB, Drupal, PHP

- Again, Architected a new multi-account AWS strategy for patch to migrate all their applications into using EKS
- Helped migrate from CircleCI to GitHub actions

- In charge of managing GitHub, CircleCI, AWS, GCloud, EKS, and the Network both on-premises and in the cloud.

Koalafi

Staff Software Engineer | May 2019 - September 2020

Technologies: AWS, Python, Terraform, CloudFormation, Go, EKS, ML, AI

- Architected a new multi-account AWS strategy for patch to migrate all their applications into using EKS
- Built all the systems using GitLab, and GitLab runners
- Created a BreakGlass login for Production
- Head Security Engineer
- Deployed ML models in Python for consumption by the business to do credit evaluations.

Capital One

Master Software Engineer | June 2014 - May 2019

Technologies: AWS, Java, Python, Terraform, CloudFormation, Angular, EKS,

- Main CI/CD engineer for all of Card Online Servicing
- Main CI/CD engineer for CreditWise
- Did the Java work to migrate CreditWise from using plain text SSN to using encrypted SSN
- Open Source Leader at Capital One making the most open source contributions across the entire company
- Worked on the internal Java Framework that serviced all of the rest APIs that the company runs

CapTech Consulting

Consultant | August 2010 - May 2014

Technologies: Java, Maven, SQL, Apache Ant,

- Started Capital One's internal java framework
- Did SQL reporting for BonSecours
- Standardized Virginia Workforce's Compensation legal docket system
- Managed Lowes mobile orchestration RESTful API layer

U.S. Freestyle Kayaking Team

Member | 2000, 2001, 2007

- Represented the United States overseas in Freestyle Kayaking
- Placed 6th, 8th, and 8th in World Championships

EDUCATION

University of South Carolina - M.S. Mathematics

Columbia, SC | 2007 - 2009

Mathematical Logic, Applied Mathematics, Theoretical Computer Science, Combinatorics on Words, NP-Completeness

Virginia Tech - *B.S. Mathematics*

Blacksburg, VA | 2002 - 2007

Won the undergraduate prize in Mathematics. Combinatorics on Words, Linear Algebra, Logic

Virginia Tech - *B.S. Engineering Science and Mechanics*

Blacksburg, VA | 2002 - 2007

Biomechanics, Applied Physics, Systems Engineering, Engineering Science

Publications

- Drost-Fromm and R. Tompkins, “Open Source Community Governance the Apache Way,” in IEEE Computer, vol. 54 no. 4, pp. 70-75, April 2021, doi: <https://www.computer.org/csdl/magazine/co/2021/04/09399942/1sF3Go1prSU>
- C. R. Tompkins, *The morphism with unstackable image words*, preprint <https://arxiv.org/abs/1006.1273>
- C. R. Tompkins, *Latin square Thue-Morse sequences are overlap-free*, Discrete Mathematics and Theoretical Computer Science, 9, 2009, 239-246