

Matthew Frost

Cambridge, Massachusetts

matthewfrost.com

github.com/exupery

VMware, Boston, Massachusetts (2014 - Present)

Senior Member of Technical Staff (2019 - Present)

Member of Technical Staff 3 (2017 - 2019)

Member of Technical Staff 2 (2015 - 2017)

Member of Technical Staff 1 (2014 - 2015)

- Software engineer on the development team for vCloud Director, VMware's multi-tenant cloud management solution. vCD provides monitoring and controlling of cloud computing components such as VM provisioning/orchestration, security, billing, and self-service access.
- Added support for automated/unattended install and configuration of vCD. [Java]
- Refactored implementation of vCD cell applications to increase extensibility. [Java]
- Expanded available functionality and increased safety of zero downtime upgrades by adding runtime checks comparing which tables will be altered and how they are used. Also added compile-time checks to ensure new upgrades do not reduce functionality. [Java, Hibernate]
- Modified IP and port configuration so vCD could run in a container. [Java, Docker]
- Changed upgrade so upgrading one node would upgrade all other nodes. [Java, Bash]
- Refactored heartbeat code to improve configurability and added multisite heartbeats. [Java]
- Extended the existing vCD query service to support multisite querying. [Java]
- Improved the domain specific language for vCD's upgrade framework to support additional data types and additional SQL operations. [Java, Groovy, SQL Server, Oracle, PostgreSQL]

StopBadware, Cambridge, Massachusetts (2012 - 2014)

Software Engineer

- Designed, built, and maintained the applications and databases used by StopBadware.
- Created StopBadware's Data Sharing Program to facilitate sharing of malware-related data among information-security researchers, companies, and organizations. [Java, MongoDB]
- Created an internal application for use in StopBadware's independent review process to provide higher quality data related to each site under review. [Scala, PostgreSQL]
- Rewrote Google's blacklist importer, significantly reducing import time, allowing Google to send their blacklist more frequently, increasing the clearinghouse's timeliness. [Java, MySQL]
- Built an IP/AS resolver allowing StopBadware to publicly report the IPs and Autonomous Systems hosting the most sites blacklisted by StopBadware's data providers. [Java, MySQL]

Education

Master of Science, Software Development **Boston University** *Expected Graduation May 2019*

Bachelor of Science, Information Technology **Western Governors University** *Graduated May 2012*

Selected non-work development projects

- shouldifollow.com - Displays metrics such as frequency/timing of tweets and average tweets per day for Twitter users. [Ruby]
- DontCast - World of Warcraft add-on with over 100,000 downloads. [Lua]
- PvPLleaderboard.com - Allows viewing and filtering of PvP leaderboards and the talent, gear, and stat choices of top World of Warcraft players. [Ruby, Scala, PostgreSQL]

Volunteer Experience

Operation Code (2017 - Present)

Mentor helping military veterans learn to code and transition into software development careers.

Technical Proficiencies

Java, Scala, Ruby, C++, JavaScript, Lua, Groovy, Python, Clojure, Go, PHP, HTML, CSS, MySQL, PostgreSQL, MongoDB, Redis, Spring, Hibernate, Rails, Play, React, Docker