



# ROBERT HAFNER

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## PROFILE

Robert Hafner has been writing code, managing infrastructure, and building companies for as long as he can remember. He is heavily involved in open source and has released numerous projects, including many security and scalability related libraries. On the professional level he has acted as a dev/ops consultant for dozens of companies before spending five years in an executive role at Malwarebytes. He is currently working at Vicarious where he is helping to build the future of Artificial Intelligence.

## RESOURCES

**LinkedIn** <https://www.linkedin.com/in/roberthafner>      **Portfolio** <http://www.tedious.io>  
**Github** <https://github.com/tedivm>      **Blog** <http://blog.tedivm.com>

## SKILLS

**Languages** Python, JavaScript/Node, NativeScript, PHP, Java, Bash - Familiar with Perl, C Scheme  
**Systems** Linux, ESXI, BIND, Apache, nginx, Puppet, OSX, iptables and networking  
**AWS** EC2, S3, IAM, VPC, Route53, Workspaces, ASG, RDS, boto3  
**Data** VMWare, Cloud Architecture, Hadoop, ElasticSearch, MySQL, Caching  
**Tools** Jira, Zendesk, git/Github, vagrant, Jenkins, Nagios, jQuery, HTML/CSS  
**Management** Technical Recruiting, Vender Relations, Excellent Communication Skills, Cat Herding  
**Development** Agile Processes (scrum, kanban), API Design, Continuous Integration, Scalability

## EXPERIENCE

### HEAD OF SECURITY AND DEVELOPMENT OPERATIONS

**Vicarious FPC**; Union City, CA

*November 2014 - Present*

- Rebuilt all infrastructure making it highly redundant and Puppet based.
- Created a new research cluster grid on AWS, allowing for infinite clusters that can scale up and down.
- Rebuilt and modernized corporate infrastructure stack onto a highly redundant VMWare cluster.
- Integrated multiple VPCs and the internal network.
- Audited and improved security of the company infrastructure, including managing a third party audit.

### STARTUP ADVISOR AND NOMADIC DEVELOPER

**AKA Vacation Time**; San Francisco, CA - Paris, France

*February 2014 - November 2014*

- Advised multiple startups and a Kickstarter project on business models, operations, contracts, and funding.
- Found a COO for a local startup.
- Developed open source projects and advised projects.
- Travelled, programmed, learned and grew as a person.
- Organized forty five member Burning Man camp.
- Rebuilt personal datacenter.

### VICE PRESIDENT OF IT

**Malwarebytes Corporation**; San Jose, CA

*September 2010 - February 2014*

- Built and Managed four departments- Server Side Development, Development Operations, Corporate IT and Malware Intelligence- with 25+ employees and contractors.
- First non-founder member of the executive team; supplied advice and built strategy with the leads of all departments.
- Managed solid platforms for analytics, trials, updates and standard business operations in the face of an exponentially growing user base and the anger of a large number of cyber criminals.
- Personally built the company's first hadoop (EMR) based analytics platform.
- Applied agile processes to our software and infrastructure teams, working closely with QA to be truly agile.
- Helped launch and support the Malwarebytes Unpacked blog; including writing content.
- Was the main point of contact with Law Enforcement for information sharing.
- Maintained a culture and infrastructure that was never once hacked or exploited despite constant threat.

### DIRECTOR OF IT

**Malwarebytes Corporation**; San Jose, CA

*April 2010 - September 2010*

- Maintained ownership over all server side development and operations.
- Began the process of recruiting and building out technical teams.
- Helped develop policies and practices for the quickly growing company.
- Managed relationships with CDN, Datacenter, Cloud and other vendors.

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## **CONTRACTOR**

**Malwarebytes Corporation;** *San Jose, CA*

*October 2008 - April 2010*

- Built initial company infrastructure in 24 hours after a slash-dot affect took down their community run site.
- Managed vendor negotiation and saved the company hundreds of thousands of dollars, if not more over time, in services.
- Built a resilient and high performing product update platform with global download points.
- Defended against DDoS attacks and other more sophisticated exploitation attempts.

## **DEV/OPS CONSULTANT AND COFOUNDER**

**SolunaNet;** *Chicopee, MA*

*January 2008 - April 2010*

- Performed application security audits and instructed developers on secure development practices.
- Performed post incident analysis, repair and remediation.
- Built fault tolerant highly scalable applications, primarily on the LAMP platform.

## **CONTRACTOR, DEVELOPER AND SERVER ADMINISTRATOR**

**Positronic Design;** *Holyoke, MA*

*June 2006 - February 2009*

- Long term consulting contract that started as a system administration and web development and grew into a project management role.
- Rebuilt shared hosting environment and created the dedicated server offerings.
- Lead development projects with teams consisting of other subcontractor developers.
- Approved or directly wrote the specifications for all new development projects.

## **DEVELOPER AND SERVER ADMINISTRATOR, COFOUNDER**

**Soluna Enterprises;** *Chicopee, MA*

*December 2005 - January 2008*

- Technical partner in two person shared and dedicated web hosting company with over six hundred sites.
- Managed dozens of web development projects ranging from small bug fixes to large scale multiple developer projects.
- Specialized projects included mass migration, custom system architecture, and server hardening- often in emergency circumstances.

## EDUCATION

### **WORCESTER POLYTECHNIC INSTITUTE**

*Worcester, MA — 2004-2006*

### **SPRINGFIELD TECHNICAL COMMUNITY COLLEGE**

*Springfield, MA — 2006-2007*

## REFERENCES

**AVAILABLE ON REQUEST.**

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Open Source Libraries		
<b><u>Stash</u></b>	<b><u>Fetch</u></b>	<b><u>JShrink</u></b>
A PHP Caching Library with over 300k downloads.	A PHP Library for IMAP and POP email access.	A PHP Library that minifies javascript for faster page loading.

Puppet Modules		
<b><u>PSAD</u></b>	<b><u>Hieratic</u></b>	<b><u>iscsi</u></b>
This module controls the Port Scan Active Defense program, providing active response to block port scans.	This module makes all of the native datatypes present in Puppet accessible directly using Hiera in order to make testing and prototyping faster.	This module makes it possible to define iscsi connections in Puppet. This makes it easier to work with AWS Storage Gateways and other iscsi devices.
<b><u>rsnapshot</u></b>	<b><u>inspircd</u></b>	<b><u>ghebackups</u></b>
This advanced rsnapshot module makes backing up servers trivial.  SSH keys and accounts are created, as are wrapper scripts around sudo to prevent opening the root account to ssh.	This module allows IRC networks and servers to be defined using inspircd.  SSL is handled using gnutls or openssl. The ircd can be customized extensively using only Puppet.	This module turns a server into a Github Enterprise backup server. It creates the relevant accounts, adds cronjobs, and manages ssh options to ensure that backups occur.

Applications		
<b><u>League of Automated Nations</u></b>	<b><u>ScreepsStats</u></b>	<b><u>Spawn1</u></b>
This web application is an alliance tracker for a programming game called "Screeps". It maintains rankings as well as an interactive map showing which rooms are claimed by different players and alliances.	Using a reverse engineered API this project takes data saved inside the game "Screeps", transforms it and injects it into elasticsearch.  A provisioning system using vagrant is provided for players who are not comfortable installing the ELK stack themselves.	This is a mobile client for the Screeps game built using NativeScript. It has a built in messenger, profiles of different alliances, a websocket based console for interacting with the system, and other informational pages such as the wallet and market order pages.