

# Dr. Patrick S. Rhomberg

Senior Software Engineer

Doctor of Philosophy in Applied Mathematics and  
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Master of Computer Science

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## Experience

### Pivotal Software Inc.

**Software Engineer**, Jan 2017 – \$(date +"%b %Y")

Held positions on the Toolsmith, Monitoring & Management, and the ambiguously-named Core teams.

As a Toolsmith, developed and maintained continuous-integration infrastructure, as well as assisted in migration of that infrastructure from AWS to GCP.

On M&M, maintained command-line tool **gfsh**, expanded configuration API, and ensured security throughout the cluster.

As a part of Core, worked to parallelize **precheckin** testing suite, reducing execution time ~3 hours to ~45 minutes.

Also as part of Core, redesigned the GemFire build from the ground up to respect modularity, allow build parallelization and incrementalization, and cleanly delineate ownership and testing boundaries between supporting projects.

### A previous life as an academic

**Teaching Assistant**, September 2014 – May 2016

The University of Iowa, Department of Computer Science

**Adjunct Professor**, September 30 2013 – December 12 2013

Cornell College, Department of Mathematics and Statistics

**Assistant in Instruction**, September 2013 – December 2013

The University of Iowa, Department of Mathematics

**Teaching Assistant**, August 2007 – May 2013

The University of Iowa, Department of Mathematics

Complete teaching history available at: [home.patrhom.com/resources/resume/teaching.pdf](http://home.patrhom.com/resources/resume/teaching.pdf)

### Other notable bits

I am the author of [/u/roll\\_one\\_for\\_me](https://www.reddit.com/user/roll_one_for_me), username-summoned table-roller for [/r/DnDBehindTheScreen](https://www.reddit.com/r/DnDBehindTheScreen) and related subreddits. The bot is GCP-hosted, deployed via Docker, and public [on GitHub](https://github.com/patrhom)

My doctoral thesis, *On the Scalable Parallelization of Network Diffusion Models*, is available at the University of Iowa's Institutional Repository: <https://ir.uiowa.edu/etd/5831/>

## A Summary of Me as a Developer

I'm a polyglot. I love learning and delight in having confidence that I've chosen the right tool for a given job.

### Language and Tool Proficiencies

Fluent and well-spoken:

Java JDK 8

Python (both 2 and 3)

The Gradle build tool

`git`, because of course `git`

Linux and `bash`

`emacs`

Concourse continuous integration, and as a consequence, also Jinja2

The JetBrains family at large, but predominantly IntelliJ and PyCharm, as one might expect from the above

Conversational:

Java JDK 11 and Jigsaw modules.

Docker. So hot right now.

AWS and GCP, predominantly as vehicles for previously mentioned continuous integration and personal projects.

`vim`, because as much as I prefer `emacs`, I'm not a zealot and will use the tools available to me.

Out of practice but happy to relearn:

C / C++, Perl, Matlab, Gnuplot

Neophyte:

R, Go, Django

And probably some others, because who can really enumerate everything they know?

### Strong opinions, held

A problem does not need to become costly before its solution has value.

A product withers on the vine when its build system is broken.

A responsible developer knows how it works.

Tests form the contract of permissible product behavior.

Product confidence cannot exist without test confidence.

A responsible developer seeks out the full usefulness of their tools.

Your IDE is there to help you, if you would only ask it.