

# Matthew Avant

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## EXPERIENCE

**Palantir Technologies** (Palo Alto, CA)  
*Software Engineer*

Jul. 2014 - Present

Worked primarily in Java and shell, with focus on devtools, performance engineering, and “debugging weird voodoo.”

Selected projects:

- *Dino*, a framework for graph-structured search federated search with conflict resolution (patent pending)
- *Fragarach*, a peer-to-peer protocol for rapid code and blob deployment (patent pending)
- *InstantIntegration*, a distributed test scheduler and orchestration framework using Fragarach, EC2, & GCE
- *Yodawg*, a bootstrapper using JNI to create a Java 8 VM inside a Java 6 VM, to avoid application whitelisting

**Saint John's University** (New York, NY)  
*Research Assistant*

Jan. 2012 - Dec. 2010

Research in structural DNA nanotechnology with Dr. Philip Lukeman.

Direct experimentation, experiment design, lab supervision, new member training

**Tutor.com** (New York, NY)  
*Tutor*

Oct. 2011 - Mar. 2012

Individual tutoring (high school mathematics and physics)

**Affinegy, Inc** (Austin, TX)  
*Intern (Programming and QA)*

Summer 2009 & 2010

Build system automation (mostly Perl), database curation and development (SQL and PHP), and bugfixes for end user software (C++) for wireless network / gateway management.

**Austin Independent School District** (Austin, TX)  
*Student Network Administrator*

Oct. 2007 - Jun. 2009

Network management, Win32 and OSX administration, server configuration, tech support, basic workflow scripting. Projects included building a thin-client computer lab and a Beowulf cluster using EOL PCs and Linux-From-Scratch.

## EDUCATION

**Recurse Center (formerly Hacker School)** (New York, NY)

Feb. 2014 - May 2014

Worked in a wide array of languages on self-directed projects, such as

- *Rustoleum*, a minimal speed-reading app for the terminal. Rust.
- *Clippy*, a CDT agent that takes an environment model and a list of actions and maximizes paperclips. Clojure.
- *Battle of Wits*, a simulator in which two agents have access to each other’s source code, and must predict which of two cups the other has filled with poison. Scheme.
- *Pysonic*, a two-way transformer between S-expression notation and Python-like whitespace syntax. Scheme. (If you start with a Lisp, Pysonic is Pythonic.)

**Saint John's University** (New York, NY)  
BS Magna cum laude in Biology

Sep. 2009 - May 2013

## SKILLS

Preferred languages: Haskell, Java, shell  
Environment: Arch Linux, zsh, vim, git  
Secret Clearance, U.S. Government

## INTERESTS

Formal verification  
PL & type theory  
Distributed systems  
Combinations of the above (e.g. TLA+, PlusCal)

## LANGUAGE PROFICIENCY

