## Nathan Holland

### Personal Data

PLACE AND DATE OF BIRTH: Indianapolis, Indiana | April 6 1994

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### **WORK EXPERIENCE**

# Current DEC 2013

### Software Developer

Granicus

Developed internal projects to support legacy software. Spearheaded development on new products. Taught other developers various programming languages, technologies, and techniques. Investigated new technologies for the company and provided analysis. Worked on automated deployment system and tools associated with it. Built build processes for frontend applications.

### **PROJECTS**

#### Prometheus

# Distributed, automated test running tool Closed source

Runs cucumber test suites across machines with different configurations. Gives QA access to livestreams of tests as well as live logs. Analyzes logs from test runs and uses that information to highlight tests that are more likely to fail, prioritizing those first.

#### Fudd

MySQL binlog deserializer and RabbitMQ publisher MySQL library source: https://github.com/granicus/mysql-binlog-go

Other components are closed source

Built to solve specific problem with legacy software in which we could not easily replicate model transactions to RabbitMQ. No MySQL binlog deserializer would work for our version of MySQL, so one had to be built from scratch. Tails the binlog live on the database server and takes advantage of concurrency to keep up with the application's high throughput.

### Zeus

Easily configurable, highly concurrent service bus

Source: https://github.com/nholland94/zeus

Designed to make wiring restful service oriented architectures easy. Still maintains a high level of configurability. Written and configured in Elixir, but requires little knowledge of the language to use.

### PROGRAMMING LANGUAGES

HIGHLY PROFICIENT: C, OCaml, Ruby, Go, Javascript, PHP, Java, Lua, Elixir Moderately Proficient: Lisp (specifically Scheme), x86 assembly, Python

MILDLY PROFICIENT: Factor, Ada, Nim, Rust, APL, Haskell

#### TECHNOLOGIES

WEB DEVELOPMENT: Rails, Phoenix, React.js, Backbone.js, Underscore.js, WebSockets,

Socket.io, Apache, HTML, CSS

OTHER TECHNOLOGIES: Linux, SQL, Chef, Makefile, Grunt, Xlib, Wayland, OpenGL

### **AWARDS AND ACTIVITIES**

2011 and 2012	"Excellence in Computer Science" - Gill St. Bernard's School
2010	Receive a 5 in AP Computer Science
2010	Worked with a Computer Science graduate student at Drexel University
	Worked on optimizing N-Body simulator by performing calculations in parallel on GPUs
2011 - 2012	Designed and participated in a programming independent study during highschool
	Included artificial neural networks and DirectX 3D work
2008 - 2012	Programmed on First Robotics Competition (FRC) team 2458

### INTERESTS AND ACTIVITIES

Programming Languages, Compilers, Kernels, Music Visualization, Virtual Reality, Puzzles