## Christopher Michael Kirkland

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Webpage: http://chriskirkland.us

**Objective** 

Tackle difficult Engineering problems and produce quality software, particularly in the areas of cloud computing and web services, with an emphasis on scalability, reliability, and performance.

Education

North Carolina State University, Raleigh, NC, 27695

M.S. in Applied Mathematics, Dec. 2014

Computational Mathematics concentration, 3.93 GPA

Mercer University, Macon, GA, 31207

B.S. in Mathematics, May 2012

B.A. in Computer Science, May 2012

Summa Cum Laude, 3.98 GPA

Work Experience International Business Machines

11501 Burnet Rd, Austin, TX 78758

Staff Software Engineer, Container Autoscaling

Feb 2017 - current

Supported the delivery of the IBM Container Service based on Kubernetes to market. Worked on core services including framework for monitoring, alerting, and metric aggregation at the cloud platform level. Also improved common microservice library for ETCD transactions for better reliability and resiliency.

Staff Software Engineer, Cloud Performance

June 2015 - Jan 2017

Improved the performance of IBM Cloud infrastructure and Cloud services. Focused on Open-Stack services Nova, Heat, and Keystone as well as BlueMix web services. Job responsibilities include development, maintenance, and orchestration of bechmarks; results analysis; and producing technical reports for executive consumption. Secondary responsibilities include serving as primary git master for squad and technical mentoring of new team members and interns.

North Carolina State University

August 2012 - April 2015

2310 Stinson Dr, Raleigh, NC 27695

Mathematics Graduate Teaching Assistant

Taught and graded for undergraduate mathematics courses including Finite Mathematics, Precalculus, Calculus I, Calculus III, and Differential Equations.

Terma North America

May 2011 - August 2011

601 Russell Parkway, Warner Robins, GA

Software Development Intern

Developed and improved internal tools for automatically generating documentation for embedded Aircraft systems. Also, unit tested production software for flight systems integration suites.

Technical Skills

Languages:

Proficient: Golang, Python, Bash

Familar: Javascript

DevOps tools: Ansible, Prometheus, Grafana, ELK/ElasticStack

Web Technologies: HTML/Pug, CSS/Sass Math Tools: LaTeX, Mathematica, Maple, MatLab

Award and Honors

IBM Cloud Infrastructure Services "Eminence and Excellence Award" 2015

NCSU Math Department Graduate Research Followship, Spring 2015

NCSU Math Department Outstanding Teaching Assistant 2013

Mercer University Riley Plymale Award for Excellence in Mathematics 2011-2012

Mercer University Outstanding Junior in Computer Science 2010-2011

Conferences OSCON Austin (Attendee)

 $May\ 2017$ 

DockerCon Austin (Attendee)

April 2017

 ${\bf OpenStack\ Summit\ Barcelona\ (Presentation\ Accepted)}$ 

October 2016

A Nova Scheduler for Public Cloud Scale

Research

Graduate Research Assistant (H. Hong)

June 2014 - March 2015

Worked on improving interval methods for solving real, square, conservative polynomial systems with few real roots. In particular, I worked to profile and improve upon existing software for solving real systems with sparse real solutions (compared to complex) improving the underlying

algorithms.