

# Kenny Ballou

<https://kennyballou.com>

PDF Copy: <https://kennyballou.com/resume.pdf>  
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## PUBLICATIONS

### BOOKS

- Learning Elixir, Packt
- Elixir: Scalable and Efficient Application Development, Packt

### PAPERS

Incremental Transitive Closure for Zonal Abstract Domain • Identifying Minimal Changes in the Zone Abstract Domain • Minimally Comparing Relational Abstract Domains

## SKILLS

### PROGRAMMING

Python • Java • Scheme • Go  
Elixir/OTP • Erlang/OTP • C# • C  
Bash • JavaScript • Rust

### TOOLS/OTHER TECHNOLOGIES

GNU/Linux • Git • L<sup>A</sup>T<sub>E</sub>X • Markdown  
GuixSD • NixOS  
Mercurial • GNU Make • Maven  
Emacs • Vim • IntelliJ  
Amazon Web Services • PostgreSQL  
Docker/Containers • Networks • Ansible

## LINKS

Github://kennyballou  
Bitbucket://kballou  
LinkedIn://kennyballou

## EDUCATION

### BOISE STATE UNIVERSITY

PH.D. IN COMPUTING EMPHASIS IN  
COMPUTER SCIENCE  
May 2024 (expected)

### APPLIED MATHEMATICS, B.S.

December 2014  
Student Research Initiative (SRI)  
Fellowship Recipient (2013)

## NOTABLE MENTIONS

- Linux Kernel Contributor
  - Various other FOSS Contributions
- Sun Valley Ski Education Foundation
- National Bronze Medalist  
Open-Mens Half-Pipe (2009)
  - Three time invitee (Project Gold) US  
Olympic Snowboard Team Camp

## EXPERIENCE

### BOISE STATE UNIVERSITY | GRADUATE RESEARCH ASSISTANT

August 2020 - Present

- Research Interests: Programming Languages and Abstract Semantics
- Research and develop static analysis framework extensions

### HOMEUCU, LLC | SITE RELIABILITY ENGINEER

March 2017 - August 2020

- Maintain AWS Infrastructure and Automation
- Develop internal tools for application environment management
- Systems tooling and Integration with AWS
- Build Automation, Tooling, and Administration
- Office Network Administration

### ZDATA, INC | SOFTWARE DEVELOPER

January 2016 - January 2017

- Design, develop, and maintain software applications in support of our managed services team

### CLEARWATER ANALYTICS | SOFTWARE DEVELOPER

July 2015 - December 2015

- Design, develop, and maintain full-stack web applications, specifically in the Asset Manager space

### ALPINE DATA LABS | DATA SOLUTION ARCHITECT

January 2015 - July 2015

- Developer and maintainer of several internal and external toolkits and libraries
- Provide assistance for the sales and technical account managers regarding proof-of-concepts and other technical concerns with Alpine/Chorus

### ZDATA INC. | BIG DATA ENGINEER

Jan 2014 - Jan 2015 | Boise, ID

- Work with and provide support for EMC/Pivotal database technologies
- Research and evaluate several big data technologies including: Hadoop, Spark, Storm, and Kafka, as well as other technologies such as PostgreSQL and Zabbix

### BOISE STATE UNIVERSITY | RESEARCH ASSISTANT

2013 | Boise, ID

- Research and develop a new framework for heterogeneous CUDA-capable GPU clusters

### BOISE STATE UNIVERSITY | STUDENT HPC SYSTEMS ADMINISTRATION ASSISTANT

Summer 2013 | Boise, ID

- Configure advanced GPU/CPU scheduling into Sun Grid Engine (SGE)
- Downsize and clone an Idaho National Laboratories (INL) based mini-Cave

### POWER ENGINEERS | INTERN SOFTWARE DEVELOPER

2008 - 2013 | Boise, ID