

Miles Lindheimer
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OBJECTIVE

Exercise programming and development skills in a stimulating and challenging environment.

EDUCATION

University of California, Berkeley

B.A., Computer Science, anticipated December 2015
Honors: Dean's List 2012
GPA: 3.284

Campolindo High School

Moraga, California
Diploma June 2011
GPA: 4.0

TECHNICAL SKILLS

Languages:

Java, C/C++, Python,
Scala, SQL, JavaScript

Frameworks:

Spring, jQuery, Backbone,
Hadoop, OpenGL, OpenCV

Tools:

Git, JUnit, Bash, Vim,
SVN, Jira, Eclipse

WORK EXPERIENCE

Backend Development Intern

ZoomSystems, San Francisco, CA (2014)

- **RESTful API design:**
Reworked legacy JSP-driven API to provide RESTful API for frontend developers to use
- **Visual Motion Detector:**
Uses webcams and image processing, written in Java, built with OpenCV framework

Quality Assurance Intern

ZoomSystems, San Francisco, CA (2012-2013)

- **Software QA:**
Product and software documentation, regression testing, and debugging
- **Hardware QA for Automated Retail Machine:**
Development and testing for compatibility, scalability, and maintainability

RELEVANT COURSEWORK

- Data Structures & Programming Methodology
- Computer Architecture
- Efficient Algorithms & Intractable Problems
- Internet Architecture
- Foundations of Computer Graphics
- Database Systems

PROJECTS

User-Defined Function Caching:

- Scala, Apache Spark
- Implemented disk hash-partitioning and UDF caching in a distributed computing framework

Bezier Graphics Engine:

- C/C++, OpenGL
- Generates 3D rendering with user control, based on input of Bezier patches

Word Co-occurrence MapReduce:

- Java, Apache Hadoop, Amazon EC2
- Calculates co-occurrence rates in large texts

Reliable Transport Protocol:

- Python
- Implemented TCP-like packet transport protocol

Firewall:

- Python, IPv4 packets
- Passive firewall that passes or drops packets, terminates connections, and performs redirects, configured by a rules file

Image Processing and Optimization:

- C, OpenMP, Intel SSE
- Optimized naive implementation of 2D image convolution using parallelization, loop unrolling, and cache blocking - 6000% speedup