Nathaniel Moseley

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Seeking a 6 month co-op internship to enhance and utilize my computing skills and creativity.

Skills:

- Dependable and Responsible
- Detail-oriented
- Visually motivated
- Works well with others

♡ English ♡ Japanese ⋆ German ⋆ Latin

Proficient	**Knowledgeable**	**Some Experience**
♡ Java ♡ JavaScript	⋆ C# ⋆ XML	• Ant • UML • Shell Scripting
♡ Python ♡ HTML	⋆ C++ ⋆ PHP	• Maven • Haskell • Windows Batch
♡ Matlab ♡ CSS	⋆ LaTeX ⋆ SQL	• Lisp • Prolog • MIPS Assembly
♡ Various Debian Linux	⋆ Windows	• Apple OS X, OS 9
♡ Vim ♡ IntelliJ	⋆ Microsoft Office	• Eclipse • SVN/CVS/RCS • Adobe Products • Visual Studio

Education:

Rochester Institute of Technology — Expected August 2012
Master of Computer Science Focus on Computer Vision and Bachelor of Computer Science — GPA: 3.261
Minor in Japanese Language and Psychology

Relevant course titles on back

Related Work Experience:

Application Support Engineer — March 2011 - June 2011
Newstex, LLC. — Rochester, NY

- Programmed backend development, fixes, and documentation

Software Developer — November 2009 - June 2010
Rochester Institute of Technology - Center for Integrated Manufacturing Studies — Rochester, NY

- Performed bug fixes, testing, code review, and feature implementation, leading to increased customer satisfaction
- Solo and collaborative work using company instant messaging and ticketing system

Additional non-related work experience on back

Projects:

Image Scene Recognition:
- Automatically classify an indoor or outdoor scene — Matlab
- Programming and training Self Organizing Maps — Team of 2

Parallel -Doku Solver:
- Parallelize to more quickly solve larger puzzles — Parallel Java
- Attempt optimal speedup and sizeup when run in parallel — Team of 2

GPS Database:
- Path data storing and analyzing database program — Team of 3 using Oracle SQL Server and Java

Comix patches:
- Open source comic book archive and image viewer — Python using PyGTK
- Bug fix and feature patches: — Bug fix incorporated into source tree
  GIF capability, progress display, background enhancement — Diff files submitted on SourceForge

Pidgin MMO Interation:
- Plugin for chatting through an online game remotely — C++ and C#
- Understanding program execution through Assembly code — Attempted memory reading hooks

Courses:

Graduate Level:

- Advanced Computer Vision
- Introduction to Computer Vision
- Algorithms
- Database Implementation
- Intelligent Security Systems
- Cryptography 2

Undergraduate Level:

- Parallel Computing 1
- Database Concepts
- Cryptography 1
- Software Engineering
- Artificial Intelligence
- Introduction to Functional Languages
- CS Theory
- Professional Communications
- Operating Systems
- Computer Organization
- Computer Science 4 (C++)
- Computer Science 1-3 (Java)
- Data Communications and Networks

Additional Work Experience:

Busser and Host February 2007 – August 2007, Summer 2008, Summer, 2009
Tsunami Sushi Bar and Restaurant Salt Lake City, UT

- Operated as customer service, restaurant cleanliness, set-up and closing
- Performed seating, phone answering and take-out
- Alleviated wait staff and hosts, resulting in increased productivity and customer satisfaction

Volunteer 2006 – 2007
Ten Thousand Villages Salt Lake City, UT

- Conducted customer service, inventory, unloading, and stocking
- Assisted as cashier, painter, helped building and moving to new location

References available on request

Additional Projects:

Newstex Work:

- Cloud syndication system backend
- Python, JavaScript, Amazon AWS

CIMS Work:

- Large vehicle health analysis system
- Java, Ant, Maven, Microsoft SQL Server, and MySQL
- Database updates, networking optimization, hardware interface interoperability

Database Improvements:

- Added storage type functionality to BerkeleyDB

Team of 4 using Java

Manga OCR System:

- Automatically segment Japanese characters in manga images
- Future work: recognize, and translate characters

Matlab

Functional Programming:

- Implemented various list manipulation functions

Lisp, Prolog, and Haskell (47 functions in 319 lines)

Server Interactions:

- Pre-built basic server client implementation
- Added user input, server communication, and resultant output

C (300 lines)

Computer Organization:

- British square game program with AI
- Input, output, and error messages

MIPS Assembly
762 lines

Software Engineering:

- Created a calendar application for "users"
- Testing Leader, Quality Assurance Manager and later Co-Project Leader

Java team of 5 (About 8000 lines)

Generic Game-playing Algorithm:

- Operated on a variety of console based games

C++ team of 2

Woodworking:

- Various furniture designs with 3D modeler
- Constructed shelving and towel rack for personal use
- Artistic display box and stand within class restrictions using poplar

Extras:

Many quarters on RIT CS Dean's List
Active alumni of **Computer Science House** at RIT
Pianist for 13 years with numerous awards
Hobbyist wood furniture maker and gardener