

## Ashley Tharp

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**Objective:** Seeking internship/co-op/part-time work for Spring or Summer 2014.

### Skills

#### Languages

Proficient in: C, C++, MIPS

Have also used: Java, Latex, Racket, MelScript

#### Development Environments/Tools

Unix/Linux: Vim, gdb, make, gcc, g++, Valgrind

Windows: Visual Studio,

Other: Eclipse, Netbeans

### Education

#### University of Texas at Dallas

BS Computer Science

GPA: 3.057

Expected: Dec 2014

#### Collin College

AS Cum Laude 3D Animation

GPA: 3.525

Awarded Dec 2009

### Work Experience

#### Parasol Labs

Intern: C++ Developer

Research Topics: parallel autonomous robot motion planning, approximate convex decomposition of polyhedra

#### Moroch LP

Animator, Interactive Design

Aug 2007 – Nov 2009

#### ReelFX

3D Generalist

Projects: Simpsons Motion Ride for Universal Studios

Summer 2008

#### Private Tutor (Freelance in spare time)

C++, math, physics, violin

#### Id Software

Contract : Motion Capture Acting for DOOM 4  
June 2008

### Academic Projects

#### Optimization of ACD Algorithm

During internship at Parasol added an edge collapsing step, and an edge mapping algorithm using Dykstra's shortest path algorithm step to Parasol's existing ACD algorithm for better running time. Wrote research paper and competed in poster session.

#### MIPS Towers of Hanoi Implementation

Wrote program that displays a visual step by step solution to the Towers of Hanoi Puzzle.

Implemented Recursively.

#### C++ State Machine

Wrote state based machine for parsing mathematical expressions.

#### C++ CPU Simulation Using Processes

Wrote program with a team that simulates operation of the CPU and memory.

#### C++ Traveling Salesman Implementation

For finding the shortest path between two cities.

### Unfinished Side Projects

#### Lustre Distributed File System

Install and configure Lustre on a virtual network using VirtualBox.

#### Spatial Indexing in Parallel

Image searching algorithm to be implemented in parallel.

#### Linux Girl Scouts Badge

Creating tutorials and documentation and badge design for troop leaders to use to earn a Linux Badge.

### Relevant Courses

C++ in Unix, Computer Architecture, Advanced Algorithms, Operating Systems, Organization of Programming Languages, Calculus 2, CS 1,2 & 3