

RUSSELL MILLER

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Skills

Languages

- Experienced with: C++, C, Java, Git, BASH, UNIX, R
- Briefly worked with: Swift, Obj-C, Perl, SQL, MatLab,
- Foreign: Japanese (somewhat)

Education

‘12- University of California Davis (expected graduation Spring 2017)

- Computer Science and Animal Biology double major
- GPA: 3.5 CS major GPA: 3.9

‘08-12 Loyola High School in Los Angeles

Relevant Coursework

- | | | |
|-----------------------------|---------------------------|-----------------------|
| • Data Structures | • Operating Systems | • Systemic Physiology |
| • Algorithm Design/Analysis | • Bioinformatics | • Intro to Evolution |
| • Software Engineering | • Stat Analysis Thru Comp | |
| • Database Systems | • Genetics | |

Projects

’15 DarkMaze – C++

- Creates a randomly generated 2D maze
- Competition to write a solver in C++ using the program’s movement interface functions

’14 Minesweeper – C++

- Creates a randomly generated puzzle
- Competition to program a solver in C++ using functions that mimic the usual mouse interface

’14 Nonogram – C++

- Created a nonogram puzzle generator, simple solver, and solution checker
- Input & output are text files, allowing solver implementation in any language

’11-12 DungeonAdventure – Java

- 2D grid based game w/ heroes, monsters, and equipment
- First large object oriented program, used graphics and user interfaces, like buttons, listeners, and windows

‘12 Tetris – Java

- Implemented showing next pieces, storing pieces, score, and bomb and oil special pieces
- Used APCS case study library, *Gridworld*

Work Experience

’15- Intern at UC Davis, Veterinary Genetics Lab, Mammalian Ecology and Conservation Unit

- Rewrote old BASH scripts/pipelines, increasing efficiency by up to 200%
- Helped complete new scripts, converting and analyzing genomic data

Other Experience

Davis Computer Science Club

’14-15 Club Officer – Pragmatic Programming Committee Chair

- Led Tutorials
 - GDB debugging – 3 Workshops – ~75 people
 - Git Workshop – ~15 people
- Led Competitions
 - Minesweeper – create program to solve as much as possible of puzzle
 - DarkMaze – create program to navigate a 2D maze

’13-15 Tutor

- Tutored for 3 CS courses a few hrs/week in spare time
- Helped lead review sessions for midterms and finals for audiences of 50+ students
- Helped CS Club committee tutors with how to best help people learn

Before College

‘05-11 Boyscout, Troop 764

- Eagle Scout
- Leadership & Outdoor experience

‘11-12 Taught elementary school kids how to use an abacus

- 2nd~5th graders, 1 hr/week