Russell Miller

Davis,CA (310)-703-4125 rusmiller@ucdavis.edu github.com/blahs15 linkedin.com/in/rlmiller15

# Work Experience

’15-16 **Bioinformatics Intern** at UCD, 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

’16 **Apartment Management Intern**

* Drew apartment layouts in AutoCAD to help with advertisement and Organization

# Projects

’15 DarkMaze – C++

* Creates a randomly generated 2D maze; Uses breadth first search to guarantee and find ideal solution
* Competition to write a solver in C++ using the program’s movement interface functions
* User only knows current location, and distance to nearest walls in line of sight

’14 Minesweeper – C++

* Creates a randomly generated puzzle; Eliminates some impossible to solve puzzles
* 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

# Education

‘12-17 University of California Davis

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

## Relevant Coursework

* Data Structures
* Algorithm Design/Analysis
* Software Engineering
* Parallel Architecture
* Database Systems
* Operating Systems
* Graphics
* Bioinformatics
* Stat Analysis Thru Comp
* Genetics
* Systemic Physiology
* Intro to Evolution

# Skills

## Languages

* Experienced with: C++, C, Java, Git, BASH, UNIX, Assembly Language
* Briefly worked with: Obj-C, Perl, R, SQL, MatLab, AutoCAD
* Foreign: Japanese

# Other Experience

’14-15 Davis Computer Science Club Officer – Pragmatic Programming Committee Chair

* Led Tutorials in GDB debugging and Git – 4 workshops, total ~100 people
* Led Competitions
  + Minesweeper – create program to solve as much as possible of puzzle
  + DarkMaze – create program to navigate a 2D maze

’13-15 CS Club Tutor

* Tutored and helped lead review sessions for 3 CS courses a few hrs/week in spare time
* Helped CS Club committee tutors with how to best help people learn

‘05-11 Boy Scout, Troop 764 – Eagle Scout rank