RUSSELL MILLER

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Work Experience

'15-   **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

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 3 pieces, storing pieces, score, and bomb and oil special pieces
- Used object oriented programming and APCS case study library *Gridworld*

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

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

Skills

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

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   Boyscout, Troop 764 – Eagle Scout rank