

Gavin Mack

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Profile:

Dedicated, creative, recently graduated computer science student with a solid foundation in software engineering and programming principles. Experienced with scrum/agile workflow, successful working independently as well as with a team. Hard-working, able to quickly learn new technologies.

Education:

BS Computer Science: Computer Game Design, University of California Santa Cruz *Grad. June 2016*
- *Education minor* *Final GPA: 3.5*

Computer and Programming Skills:

Languages/Technologies

- Proficient in: C/C#/C++, Java, JavaScript, Python, Git
- Familiar with: Unity, Android, Node, MySQL, Postgres, JQuery, HTML, CSS, Assembly/MIPS/LC-3, Perl, Smalltalk, Scheme, Ocaml, Prolog, CVS
- Windows, UNIX, and Linux environments (extensive terminal experience), MS Visual Studio

Projects:

Birds at Arms Game

January – June 2016

Developed 2D MOBA game with 8-person team. Built our engine from the ground up using C++ and SDL (within VS Pro 2013). I personally handled the networking side. Created peer-to-peer network topology, which handles initial connection using Steamworks library then communicates with UDP packets. Built small reliability layer on top of the network manager to ensure in-order packet reading and synchronization. Gameplay programming to implement five unique player classes. Utilized Git for version control. Awarded 2nd place at 2016 Sammy Awards in Technical Achievement category.

Pemdamonium Game Prototype

November 2015

Created a digital prototype of an order of operations platformer game using Unity game engine (within Visual Studio 2015). Wrote C# scripts to handle player movement, platform collision detection, item pickup/maintenance, and win logic. Wrote detailed 12-page game design document. Short gameplay video: <https://www.youtube.com/watch?v=uEafr46pLho>

Antigen Web Browser Game

February – March 2014

Part of a 3-person team that developed 2D puzzle/strategy game in JavaScript using CraftyJS game engine (within Aptana Studio IDE). Designed and coded credits page; wrote multiple game design documents outlining progression of game; created CSS templates; used TortoiseSVN for version control. Game can be played at: gavinmack.com/antigen/src/gamestuff.html

Work Experience:

Teaching Assistant at North Carolina State University

August 2016 – November 2016

- For *C and Software Tools*: held office hours, answered student questions, graded.
- Wrote shell scripts to help automate assignment grading.

Calculus and Algebra II Tutor

June-August 2013, 2014

- Individually tutored high school students for about four hours/week.
- Worked through homework, exams, and provided supplemental material to the students' classes.