Miguel Lumapat

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EDUCATION

Bachelor of Science in Computer Science — **Expected May 2017**
Binghamton University, Binghamton, NY
GPA: 3.53/4.00, Dean's List: 2014-2015

TECHNICAL SKILLS

Languages: C++, C, Java, Python
Frameworks: Qt4/5, Swing, Kivy, Flask
OS/Technologies: Windows 7/8/8.1/10, Ubuntu, Debian, Git, HTML, CSS, Eclipse

NOTABLE PROJECTS

Deceit — **Rochester, NY, March 2016**

- Online board game developed in Python in team of three at a hackathon
- Implemented back-end of board game comprising player turns, score updates, and card selection.
- Utilized Flask framework to implement client-server interaction for multiplayer capability
- Recipient of **Best FOSS Hack, BrickHack2** award

Graphics Engine — **May 2014 - September 2015**

- Developed in C; GUI-less program aimed at providing renderings of animations seen in everyday games and movies
- Implemented line drawing foundation, standard wire meshes for polygon and 3D shape rendering, Bezier curves, and basic model animations such as walking and arm-twisting to create vivid animated shorts

FireGem — **October 2014**

- Turn based video game developed in Java using Swing GUI framework
- Organized game structure from engine to user interface, implemented critical structures such as event queues, statistics trackers, and AI on multiple difficulties
- Collaborated together with a graphic artist to provide visually striking character images, combat animations, level design, and in-game and main menu layouts

RELEVANT COURSES

Algorithms — **Fall 2015**

- Completed rigorous analytic coursework on several critical algorithms relating to path optimization, image processing/rendering, and graph operations
- In a project group of two, implemented jump-point search algorithm in C++ used in robotics and games for unit movement as well as designed robust case testing and arranged presentation

Systems Architecture and Programming — **Fall 2015**

- Accomplished several projects focused on C programming, x86 architecture including assembly analysis/reconstruction, and CPU cache design
- Gained important operating system concepts such as scheduling and virtualization to supplement and enhance code design and feature implementation

EXTRA-CURRICULAR ACTIVITIES

Computer, Robotics, and Engineering (CoRE) Learning Community Board member — 2013 - Present
Binghamton ACM Project Contributor — 2013 - Present