LeJon McGowan

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Education

Cal Poly San Luis Obispo **12/2017**

Bachelor of Science: Software Engineering

Employment

Developer, Nexus Shift Games **12/2014 - 8/2017**

- Architected and implemented core architecture of an upcoming, large-scale, android gaming app. Architecture is encapsulated such that the core game system and rendering technology is separated from the mobile framework.
- Created extensive number of Android fragments and custom layouts to meet demands of graphics designer's page designs
- Integrated several different libraries and technologies, including RxJava for asynchonous, event-based development and the rendering framework/scene graph library LibGDX to handle the rendering of an arituary hierarchy of high-resolution game assets
- Constructed creature creation pipleine. Includes a custom GUI tool for designers to create new creatures, which then creates or modifies a JSON structure describing a hierarchy of parts, and each part's image assets and attriubtes

Intern, Zenith Insurance IT **6/2013 - 9/2013**

- Learned of basic Web technologies needed to make a webpage, including HTML, CSS, Javascript, and JSON
- Practice JIRA Sprints by recieving, developing, and reporting feature tickets in an Agile matter
- Implemented front-end intranet site page for consolidating and displaying important data analytics on company IT servers

Technologies

C/C++	*OpenGL*	*Android*	*Linux and Windows OS*
CMake	*Java*	*Python*	*HTML/CSS/Javascript*
Maya	*Unreal Engine 4*	*Unity*	*SVN, Git*

Projects

C++ Eulerian fluid solver **3/2017 - 12/2017**

- Constructed several grid data structures used to perform sampling and vector calculus operations at each data point
- Calculated preesure at each point by means of the Poisson Pressure Equation calculated over a large matrix
- Used Marching Cubes algorithm to generate an .obj file after each frame, to be rendered in an external modeling program

General Atomics Sense and Avoid Air Traffic prototype **9/2015-6/2016**

- Created high-level mocks and UML diagrams to communicate layered software structure
- Compared several algorithms to determine best approach to consolidating, interpreting, and deciding on how to guide a drone
- Made use of unit and integration tests to ensure correct functionality

OpenGL 3D L-System **12/2014**

- Applied concept of turtle graphics to create a procedurally generate several different types of fractals, including the dragon curve, the Koch snowflake, and the Sierpenski Triangle
- Used a custom algorithm to create a 3d tree and simulate basic wind

Competitions

Intel XDK Hackathon, Cal Poly **2/2015 (1 day)**

- Top-down, tower defense mobile app with a team of 4. Featured by Intel at Game Developer Conference 2015

Cal Hacks, University of California, Berkeley **11/2014 (3 days)**

- Chromecast application for centralized collaboration between multiple mobile devices with a team of 5