ERIC K. TSAI

PROGRAMMER, GAME DEVELOPER

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Objective

To find a game development internship that would benefit from my expertise in coding and software development

Education

Carnegie Mellon University
Masters Entertainment Technology 2016

University of Virginia
B.S. Computer Science 2014
Minor Engineering Business 2014

Skills

Languages: C#, Java, C++, PHP, Ruby, MySQL
Frameworks: Unity3D, MonoGame, CakePHP, Ruby on Rails
Source Control: Git, Perforce, Subversion

Projects

Happy Foot - Makey Makey (Unity3D C#)
- Limits: **1 week** + **random team of 3**
- Programmed the logic for an interactive, balancing, hopscotch-like game
- Built a physical board that could read player footsteps using Makey Makey

MagnetE - Oculus Rift + PS Move (Unity3D C#)
- Limits: **2 weeks** + **random team of 5**
- Developed a game where the player must escape a zero-gravity environment using magnetism
- Programmed the magnetic push/pull mechanic, interactive objects, and event triggers

Breaking Math - Kinect (Unity3D C#)
- Limit: **2 weeks** + **random team of 5**
- Developed an educational game where the player uses his limbs to solve math equations
- Wrote a generator that produces equations of various difficulties

LEAP Capstone (Ruby on Rails)
- Created a database management system for the Local Energy Alliance Program, a local non-profit charity, with a team of six students

Employment

Symantec — Herndon, VA
Software Engineering Intern — Jun 2013 to Aug 2013
- Implemented asynchronous logging in C and C++ using a thread-safe blocking queue
- Created a consumer thread for grabbing logs from the queue using the POSIX threads API
- Provided a basis for efficient data logging through the implementation of the queue and documentation

Research Programming Intern — Jun 2012 to Aug 2012
- Wrote a C++ program that reads topology text to simulate in Network Simulator 3
- Designed/programmed C++ classes to implement an algorithm that calculates unknown topologies
- Used linux tools (gnuplot, twopi) to graph all topologies and data gathered
- Allowed my manager to test the limits of his algorithm, visualize it, and effectively present his research