KEVIN FUNG

kfung@tinycranes.com • (347) 850-2983 • https://www.tinycranes.com

EXPERIENCE

Amazon.com, Inc.
Irvine, CA
March 2017 - Present

Amazon Game Studios | Software Development Engineer II

- Gameplay, UI/UX, internal tools, and backend development on *Breakaway* and *New World*, with contributions to *Amazon Lumberyard*. (see below)
- Introduced code review, technical documentation, static analysis, and continuous integration processes to the team of 30+ engineers to improve code quality, software architecture, and product stability for customers.

Amazon.com, Inc.
Irvine, CA
July 2015 - March 2017

Amazon Game Studios | Software Development Engineer

- Built component that enables game entities in *New World* to preserve state across server restarts, allowing 400+ players to continuously maintain gameplay progression over several months.
- Adapted asynchronous programming techniques to implement several scalable, fault-tolerant game systems on the *New World* server model.
- Added JS/HTML/CSS hot-loading to *Breakaway* UI development toolchain, improving developer cycle times from 3+ minutes to 250ms.

Amazon.com, Inc.
Seattle, WA
May 2014 - August 2014

Amazon Web Services | Software Development Engineer (Intern)

- Reduced CPU usage by 40% on *Amazon AppStream* g2.2xlarge EC2 instances by integrating an H.264 hardware encoder, using the Nvidia Video Encoder (NVENC) SDK.

United States Naval Research Laboratory
Washington, DC
May 2010 - August 2013
(Summers)

Directed Energy Professional Society (DEPS) | Directed Energy Scholar, Science and Engineering Apprenticeship Program (SEAP) (2010)

- Developed prototype OpenCL application for solving the wave equation, and later implemented a general-purpose particle tracking system, modeling electrons moving through strong electromagnetic fields.
- Created a bore-sighted laser target-tracking system capable of acquiring and following a rapidly-moving target using thresholded-centroiding.
- Analyzed experimental data on the breakdown of water molecules to develop an automated computer model simulating a laser-produced electrical discharge underwater.

EDUCATION

Rensselaer Polytechnic Institute | 2015
Bachelor of Science – Dual Major

- Computer Science
- Games and Simulation Arts and Sciences

EXPERTISE

Languages	Frameworks	Tools
C/C++	Flask	Perforce
Javascript	Node.js	Git
Python	Twisted	Gulp