

Summary

An experienced software engineer focused on game engine development and systems programming.

Experience

Rootllama LLC

2012 - Now

Founder and Lead Engineer

- Led several projects from conception and prototyping to release.
- Designed and developed multiple cross platform game engines for PC/Mac/Linux and Android/iOS.
- Solely responsible for all architecture and implementation.
- Coordinated multiple collaborators and contractors.
- Multiple UE4 and Unity projects.
- Developed UE4 in-engine tools for a conversation and quest system.
- Complexity ranged from single player web games to server backed multiplayer projects.

Mermorang, Inc.

2016 - 2017

Consultant

- Improved reliability of the website.
- Developed a generic coupon system for purchases.
- Finished and released a new version of the Mermorang iOS app.

Pwnee Studios

2012 - 2014

Engine Guy

- Ported C# and XNA codebase for Cloudberry Kingdom to C++.
- Wrote an XNA abstraction layer for PC, PS3, and WiiU.
- Successfully navigated PS3 TRC and Nintendo LotCheck requirements.

Oracle Corporation: Oracle Secure Backup

2010 - 2012

Software Engineer II

- Extended the RPC system to support variable length messages.
- Added a software error recovery mechanism for physical tape drives.
- Implemented file system attribute backup on Windows, Linux and Solaris.

MIT Battlecode Competition

2008 - 2009

Competition Director

- Developed 3D/2D competition visualizer used by all contestants and for the public tournaments.
- Handled competition logistics and lectured on AI concepts.

Education

Massachusetts Institute of Technology

2010

M.Eng. Computer Science

Massachusetts Institute of Technology

2005 - 2009

B.S. Electrical Engineering and Computer Science

B.S. Mathematics

Awards and Publications

Modulator, Bloaty Fish, Kuiper, Mein Sheep. 2012-2014. iOS, Android, PC.

Cloudberry Kingdom. 2013. PC, PS3, WiiU, Xbox 360. Pwnee Studios. Published by Ubisoft.

Northern Telecom/BNR Project Award for Best 6.111 Project for FPGABoy. Fall 2009. Rundell T., Kozhushnyan, O.

Hair Photobooth: Geometric and Photometric Acquisition of Real Hairstyles. SIGGRAPH '08. Paris, S., Chang, W., Kozhushnyan, O. I., Jarosz, W., Matusik, W., Zwicker, M., and Durand, F. 2008.

Knowledge

C/C++, Python, C#, Java, Objective-C, Swift, Scheme, Lua, Assembler

Windows, Linux, Android, iOS, DirectX, OpenGL, Sockets, 0MQ/nanomsg, Django, PostgreSQL, Unity, UE4

Interests

Systems and low-level programming. Optimization. Computer graphics. GPUs. Game engines. Distributed systems. Functional programming. Algorithmic trading.