Havok

Graphics

Bachelors degree, Computer Science

Masters degree, Computer Science

Johns Hopkins University

Languages

English · Native speaker

Korean · Kdrama phrases

Perl



Developing software since the 80s

Skills Experience

working for myself Jan 2000 - Present Programming

Technicat LLC Development 6502 **BASIC** Flutter Providing consulting and contract software development, self-publishing apps and games. C

J2ME C++ SwiftUI working for the man C# Jun 1988 - Jun 2001 Xamarin Dart <u>various</u>

Java Game Journeyed through the semiconductor, defense, space, computer graphics, mobile Internet, and Development

Javascript video game industries. Lisp CryEngine Lua Godot Objective-C

**Projects** Qube PHP Renderware Python Ren'py

Swift Developer and publisher Jan 2014 - Present Scaleform Tcl Talk Dim Sum Unity

Unreal Your dim sum companion. Read about dim sum and learn how to pronounce the dishes. Available Writina on Itch.io and the App Store. English

Direct3D Developer, publisher and licensee Dec 2008 - Dec 2019 OpenGL **HyperBowl** Processing

Be the ball! A Unity reimplementation of the classic bowling game, licensed from Hyper

· One of MacLife's Greatest iPhone Apps of 2009

Entertainment. Available on Itch.io, Steam, and the App Store.

Developer Apr 2016 - Present

Cinefex iPad Edition An iPad reader for the Cinefex visual effects magazine, with extras such as videos and image

galleries. Kept it up and running over the march of iOS evolution, fixing, updating, and optimizing in-app purchases, user interface, video...

**Author** Apr 2012 - Apr 2013

Learn Unity 4 for iOS Game Development

An introduction to game development for iOS using the Unity game engine and an example bowling game (super simple version of HyperBowl)

**Programmer** Sep 2011 - Dec 2011

Emo-Ray vs. the Intergalactic Teddy Bears

A Playstation Home driving/shooting game with alien invader teddy bears.

· Programmer credit displayed in-world.

**Programmer** Sep 2011 - Dec 2011

RC Rally

A Playstation Home multiplayer racing game.

Interests

Cantonese · Food

Education

and Engineering Massachusetts Institute of

**Technology** 

Cats Reading Viewing Learning Listening

**Programmer** Sep 2007 - Jan 2011

Blue Mars

A 3D virtual world implemented in CryEngine. Supported third-party developers, documented the Lua API and framework for creating minigames on the community wiki (a CryEngine wiki even copied part of it!), tweaked physics, updated Scaleform integration, modified CryEngine to work with Scaleform IME (for localization).

technicat.com github.com/technicat

Links

**Programmer** May 2007 - Invalid date

<u>Nendo</u>

A nifty 3D modeler originally developed at Nichimen Graphics. Updated to work on Windows XP.

**Programmer** 

Sep 2006 - Invalid date

**Darkwatch** 

A vampire western for Playstation 2 and Xbox. Worked on various HUD elements, PAL support, demo builds, implemented multiplayer split-screen, added designer-friendly Lua interfaces for audio, health bars, etc.

· Received programmer credit (but oddly required to list city of birth).

**Developer** Jun 2007 - Present

Fugu Games

Small games released as webplayers, Mac widgets, and mobile apps.

Programmer Dec 2003 - May 2004

Tech Deck: Bare Knuckle Grind

A skateboarding game bundled with Tech Deck figures. Implemented installers, dynamic shadows, video, a build system.

Programmer Jan 2001 - Invalid date

**HyperBowl** 

A 3D bowling game, rolling in fanciful locations. Took over for the original lead programmer, updated attraction version of HyperBowl for localization, new lanes, optimization, new graphics cards, arcade and PC support.

Programmer Dec 1999 - Jul 2001

Neomar

One of the first mobile web browsers, conforming to the WAP standards. Implemented an HTTP proxy for the Neomar WAP gateway, supporting the Neomar mobile web browser on Blackberry pagers and Palm devices.

· Launched on Motient's Blackberry service.

**Programmer** Dec 1998 - Dec 1999

Leverage for Scheduling

Supply chain scheduling software for semiconductor fabs. Managed the group reponsible for installation, XML interoperability, and user interfaces.

Programmer Nov 1998 - Invalid date

Leverage for Planning

Supply chain planning software for semiconductor fabs. Upgraded from Tcl to TclPro.

**Consultant** Sep 1997 - Sep 1997

<u>Mirai</u>

Successor to N-World. Fixed some code and visited 3D hardware vendors in Silicon Valley to get test cards and chat about OpenGL.

 $\cdot$  Used to make Gollum in the Lord of the Rings movies.

**Programmer** 

Dec 1995 - Jun 1997

N-World

A 3D modeling and animation package. Ported from IrisGL to OpenGL on SGI workstations, then from Irix to Windows NT, all in Franz Allegro Common Lisp (and a bit of C). Manager of core software group (all the libraries - graphics, audio, UI, security...)

· Used in the making of Mario 3D.

### **Programmer**

Dec 1992 - Dec 1993

**ORBIS** 

An expert system for submarine simulation. Added multiplayer network capability to support participation wide area networked exercises.

· Donned a submarine uniform and took part in two exercises.

## **Programmer**

Nov 1990 - May 1992

Proposal Entry Processor

A syntax-directed Emacs mode used by astronomers and Institute staff to prepare and edit Space Telescope observation proposals.

(but no takers)

 $\cdot$  A member of the proposal preparation staff asked for my project to be continued after I left

Programmer

<u>Database Accelerator</u>

A computer architecture based on content-addressable memories. Implemented compilers and simulators and simulations for the Database Accelerator and Content-Addressable Parallel Processor.

# **Programmer**

May 1988 - Sep 1989

Oct 1989 - Oct 1990

**DROID** 

A VLSI layout synthesis tool, used in-house to design new products, running on TI Explorer Lisp Machines. Added optimizations and other improvements, skipped most of the meetings (also an optimization).

Student Sep 1987 - May 1988

<u>Multilisp</u>

Bachelors thesis project implementing an Othello game in Multilisp (Multello) to run on the Concert 32-processor computer, trying various parallelism strategies to compare processor utilization and final performance.

 $\cdot$  Wrote the thesis in LaTeX on a Symbolics Lisp Machine.

**Student** Jun 1987 - Aug 1987

**START** 

Part time student work on a graph display for the the START natural language parser, then running on Symoblics Lisp machines.

# **Publications**

#### **Learn Unity 2014 for iOS Game Development**

Jun 2013

Apress

Introduction to mobile game development with the Unity game engine.

#### **Technicat on Software**

Jan 2015

self

Collection of software development essays.