Richard T. McKenna

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Current Position	*Lecturer* *Stony Brook University* (Fall 2002 – Present)
Areas of Specialization	Game Programming Game Design Internet Commerce Programming Web Design Software Engineering Methodologies
Education	***Stony Brook University***, Stony Brook, NY M.S. in Computer Science, Spring 2002 ***The University of Texas at Arlington***, Arlington, TX Bachelor of Science in Industrial Engineering, Spring 1996
Awards	**2014** CS Dept. Award for Undergraduate Education **2008** CS Dept. Award for Undergraduate Education **2001** CS Dept. Award for Outstanding Teaching Assistant
Achievement	**Founded Stony Brook University's Annual Game Programming Competition** Held each May since 2004, in this popular student competition teams make original games and present them to alumni judges now working in the video game industry, "an impressive roster of successful video game developers " as ***Newsday*** called it. Ranked #6 by Stony Brook's ***The Admissions Blog*** on its list of best events on campus. Competition veterans have gone on to work as game developers at studios across the country including Activision, Applied Visions, Arkadium, Blizzard, Cryptic, Eduware, Kixeye, Kuma Games, Nickelodeon Games, Rockstar Games, Zynga, and more.
Web	**Home Page:** http:www.cs.stonybrook.edu/~richard **SBU Game Programming:** http://www.cs.stonybrook.edu/~games **SBU YouTube Channel:** http://www.youtube.com/user/SBUGameProgramming

Department Roles	**Founder and Coordinator -** Stony Brook University Game Programming Competition (2004 - present) Created the event and have run it since its inception in 2004. Involves choosing the finalists, inviting judges and media, and managing the event technology, literature, YouTube channel, Web Site, and event facilities as well as running the event itself.

Founder and Coordinator – CS Department Game Programming Specialization (2006 -present) Proposed this Bachelor's Degree Program Specialization in Computer Science, organized the specialization requirements, and have managed the program since its inception, updating the requirements as needed, approving students for graduation, and advising students on course sequences, research projects, and in securing industry internships.

Host and Demo Coordinator – Annual Prospective and Admitted Students Days (2002 - present) Welcome high school students and parents to our department on Prospective Students Day (discontinued, was each fall), and Admitted Students Day (each spring) leading department tours, giving recruiting presentations, and organizing student project demonstrations.

Host – CEAS Undergraduate Admissions Visit a Class program (2010 – present) Welcomed high school students and their parents into my classes, answering any questions they may have about our program to provide them with a real University classroom experience.

Course Creator – Constructed the curriculum and created all course content for new or revamped courses:
- **CSE 102:** Web Design and Programming
- **CSE 380:** Computer Game Programming
- **CSE 381:** Advanced Game Programming
- **CSE 390:** Advanced Programming Technique
- **CSE 393:** Computer Music
- **CSE 500:** Patterns in Programming
- **ISE 208:** Intermediate Programming
- **ISE 390:** Dynamic Web Development
- **ISE 503:** Data Management
- **ISE 504:** Analysis, Modeling, and Design
- **ITS 102:** Games in Total
- **ITS 102:** 3D Modeling for Games

Course Coordinator – Monitor how these courses are being taught, among other responsibilities:
- **CSE 214:** Computer Science II
- **CSE 301:** History of Computing
- **CSE 380:** Computer Game Programming
- **CSE 381:** Advanced Game Programming

Faculty Advisor – Supervise meetings, help plan events, recruit students, help administer Facebook pages:
- League of Legends at Stony Brook
- Stony Brook Computing Society (ACM)
- Stony Brook Game Developers Group

Member – Participate in meetings and decision making regarding department issues:
- Undergraduate Curriculum Committee
- Faculty Search Committee

COMPUTER SCIENCE COURSES TAUGHT
- **CSE 101 -** Computers and Information Technologies
- **CSE 102 -** Web Design and Programming
- **CSE 114 -** Computer Science I
- **CSE 214 -** Computer Science II
- **CSE 219 -** Computer Science III
- **CSE 220 -** Computer Organization
- **CSE 300 -** Writing in Computer Science
- **CSE 301 -** History of Computing
- **CSE 308 -** Software Engineering
- **CSE 333 -** User Interface Development
- **CSE 380 -** Computer Game Programming
- **CSE 381 -** Advanced Game Programming
- **CSE 390 -** Advanced Programming Techniques
- **CSE 393 –** Computer Music
- **CSE 500 -** Patterns in Programming

INFORMATION SYSTEMS COURSES TAUGHT
- **ISE 208 -** Intermediate Programming
- **ISE 390 -** Dynamic Web Development
- **ISE 503 -** Data Management
- **ISE 504 -** Analysis, Modeling, and Design

INFORMATION AND TECHNOLOGY STUDIES COURSES TAUGHT
- **ITS 102 -** Games in Total
- **ITS 102 -** 3D Modeling for Games

Publications   **The design of a history of computing course with a unique perspective** by Thomas Cortina, Richard McKenna (2006) – Presented at SIGCSE 2006 in San Antonio, Texas.

Fast Digital Image Inpainting by Manuel M. Oliveira, Brian Bowen, Richard McKenna, Yu-Sung Chang (2001) – Automated image correction algorithm and application. Appeared in Proceedings of the International Conference on Visualization, Imaging and Image Processing (VIIP 2001), Marbella, Spain.

Research Project Advisor

CSE 487: RESEARCH IN COMPUTER SCIENCE

BME-CS Kinect Game by Amna Hieder, Zhengyang Liu, Andrew Allhusen, Ken Ramos (2016) A collaboration with Ete Chen of Biomedical Engineering, the goal of this project is to create a fun Kinect game that will help rehabilitating or obese patients improve their balance and compliance to treatement.

The Dragon MMO Maker by Bryce Gregerson (2016) The Dragon MMO Maker was created as a suite of tools to allow a user without any programming knowledge to create a 2D Massively Multiplayer Online (MMO) game. These tools include a Map Editor, NPC Editor, Item Editor, and more.

Boss Fight by Alec Day, Billy Gibson, Danny Gibson, Nic Sosa (2016) This Unity multiplayer game lets four players compete in a free-for-all battle where one may choose from eight different characters with different abilities in eight different arenas.

cdEngine by Karl Floersch (2015) This plugin optimized access to content in Word Press-built sites.

GiGi by Thang Bui, Phong Cao, Shiwei Fang, Danny Gibson, Kang Piao, Yeung Wah Tsui (2015) This Web game mixed comic book storytelling with levels where gameplay advanced the narrative.

Carbonatomy by Divakar Saxena (2014) This Unity game lets the user learn about chemical bonds through gameplay.

Tether by Brian Glatt (2014) This 2D platformer game used rope mechanics to control the main character, a rope, as one journeys through each level.

Paradoxiums by Angad Sidhu (2014) A physics sandbox platformer that allows one to travel through time and manipulate the laws of physics.

Particle Boy by Jimmy Bouker (2013) Particle Boy is a side scrolling 2D shooter for the iPhone in which the player uses particle powers to defeat evil monsters. This game integrates use of a custom-built particle generation and management system.

Domain of Madness by Nick Lucchesi (2013) A networked, multiplayer iPad adventure game that demonstrates the integration of robust networking middleware technologies with a custom game rendering system.

Marines of Sol by Greg Nye (2013) In this game the player commands units who must battle deadly giant bugs. It is turn-based, where levels become progressively more difficult, with more waves to fight and less time to think about ones actions.

Corey Conundrum by Nick Trombetta (2013) This is a music-themed game, where the player must keep proper rhythm to advance. It also has a battle mode you both shoot out onto the Drum Field to defeat the computer while one creates new beats.

Astro Invaders by Sebastian Bryk (2013) A space shoot-em-up game

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Catchphrase by Charles Huang (2012) Catchphrase is its own game genre, a sitcom-style, dialog-driven, comedy game. The player is an actor on a sitcom where one must act out various scenes and choose the right lines to maximize the comedic effect.

Block Wars by Anthony Lomonaco (2012) This game combines a number of game genres: traditional arcade, tower defense, and RPG. The player must fortify ones base, fight enemies in head to head combat, and customize characters to win.

Fire Rescue by Charles Valentino (2012) Built using the Unity3D platform, this game prototype aims to help children become more aware of the challenges of Fire Rescue.

Positive Pete by Louis Ahola (2012) In this iPhone/iPad game, the player guides Positive Pete to his goal on each level by strategically placing positive and negative charges.

TowerCraft by Tom Ayalon & Anthony Lomonaco (2011) Extends the 2011 SBU competition winner, adding levels and tutorials, level editing tools, and new content. This project is the predecessor to the soon to be released Artifex Dei.

Shadow Blade by Marcin Oszkinis, Joshua Speight, Gregory Wysocki (2011) This side-scrolling game project combined an action based slasher with mood and atmosphere.

Measuring a User's Stress Level Using Standard Input by Ryan Wade (2010) This Half Life 2 mod responds with different AI according to measured levels of stress exhibited by the players as evidenced by game control input.

Alcohol Awareness by Stefan Salva Cruz (2009) Casual game that demonstrated the negative effects of alcohol abuse to the player.

Geometrico by Gregory Konopasevics (2008) Inspired by Leonardo Da Vinci's Ludo Geometrico, or "Geometry Game", this is a 3D puzzle game where the player must make changes to a starting shape in order to eventually transform it into a new form.

WeathAlert by Mark Sowul (2005) This Windows application provides up-to-the-minute weather forecasts based on ones geographic location.

GradeGenerator by Rifat Chowdhury, Muhammad Bashir, & Vinayak Shekhar (2004) This Java project extended a program used for creating, administering, and grading programming exams for introductory programming courses.

CSE 495/496: COMPUTER SCIENCE HONORS PROJECT

The Hungry Hibiscus by Roy Kim (2015) In this Unity game the players darts, slides, and rolls through fields of deadly plants.

The Debugger by Evan Saft (2014) Unity3D game of survival that combines a line-balancing tower defense type game with the action genre.

Rust by Christopher Macker (2011) This StarCraft 2 Mod is a team oriented 6v6 death match set in a randomly generated maze that changes every time you play.

MathShooter by Tony Zheng (2011) A game for teaching children to solve math problems through the process of playing an action game.

Leocht by Guozhu Luo (2009) A particle collection game where one would draw shapes t help channel particles to their proper sinks.

The DuMidea Project by Peter Justeson, Justin Seyster, Albert Yau, Dan Richardson (2005) A side-scrolling adventure game developed for Nokia Cell Phones. The focus of the game was the manipulation of physics to solve puzzles. Additional help provided by Christa Erickson.

SpellCraft by Arbiter, Pincas, Thomas, Rodriguez, Rodriguez, Miller, Chen (2008) This multi-player RPG helps players learn SAT vocabulary words through character advancement.

CSE 523/524: ADVANCED PROJECT IN COMPUTER SCIENCE

The Animated Poseur by Lisa Xu (2016) This project ports my Animated Poseur application to a Web app. This app allows one to create, save, and share animated sprites.

Game On! by Jimmy Bouker (2015) A Web application for reviewing independent games and for finding others to review your game.

devly.sh by Mark Fielbig (2014) A platform for meeting new developers with similar interests and building great projects together.

Sky Hammer by Andrew Gratta (2014) A high-speed, futuristic car game, in which you play as a bounty hunter, tracking down criminals driving on the city's gravity-defying highways in the sky.

Hit or Miss by Rajmohan Loganathan and Vinesh Karunakaran (2014) A Web application for helping book publishers determine of a book proposal is likely to be a hit or not.

Hello, World! by Shah Pavel Jamal (2012) An app for location-based real-time communication with the public.

The Blurb Feeder by Chun Li, Raman Nanda (2012) Pulls in daily news stories from disparate sources, categorizing and listing them to help the user browse and find the stories they are interested in.

Kick, Catch, and *Run* by Thomas, Chang, Blieka, Untwale, Williams (2010) These projects were done in cooperation with Biodex at Stony Brook's CEWIT research facility. They are serious games developed for rehabilitation equipment.

CSE 593: INDEPENDENT STUDY IN COMPUTER SCIENCE

TiMO by Shah Pavel Jamal (2012) A 3D turn-based MMORPG for iPhone, iPad, Android, and PC where players capture and control pet monsters in an open world where you decide how you want to play.

Drum by Betson Thomas (2009) Turns your iPhone into a customizable rhythmic instrument, where shaking it can allow the user to play different beat combinations.

Interactive Game Development System Interactive Game Development System by Dong-Hoon Lee (2006) An application for users who are eager to create their own games but are not programmers.

HON 495/496: HONORS COLLEGE PROJECT

The Poor Man's Ruby by Wesley Macker & Andrew Marrell (2014) A turn-based fantasy survival game built using libGDX with ports for Android and the Web.

Regio Vinco by Andriy Duyko (2014) In this port from my application to a Facebook game players can share their knowledge of world geography with their friends.

Beat Blast by Betson Thomas (2007) This game let the user select the in-game music and then modified the gameplay according to information extracted from the music data, like rhythms and frequencies.

Consulting	**Goldman Sachs** – New York City, NY (Summer 2008) – Taught a series of courses in Java for the Web.
	Advanced Acoustic Concepts – Hauppauge, NY. (Spring 2005) – Taught a series of courses on advanced Java programming concepts (IDL & CORBA, multithreading, etc.)
	Levittown Union Free School District, Levittown, NY (Dec. 2002, May 2003) – Taught a series of introductory Java programming courses to high school Java instructors
	Computer Associates, Islandia, NY (Jul. 2002) – Taught a "boot camp" class on Java UI programming.
	Teledata Communications Inc., Bay Shore, NY. (Apr. 2001) – Taught a series of introductory tutorials on efficient Java programming using Borland's JBuilder IDE.
Past Employment	**Teaching Assistant** Computer Science Department, Stony Brook University, Stony Brook, NY
	Process Engineer Mini-Circuits Labs, Brooklyn, NY. (1996 – 1999)