

EMPLOYMENT HISTORY

Warby Parker (July 2021 – October 2024)

Senior Software Engineer – iOS/iPadOS

- Led the development and implementation of several key features for the Warby Parker e-commerce app, collaborating closely with product and design teams to create seamless user experiences.
- Spearheaded the development of the Internal Measurements iPadOS app from scratch, using Apple Vision frameworks to assist store employees in taking users' glasses measurements. Deployed the app across all Warby Parker stores nationwide and supervised its second iteration.
- Led and implemented key initiatives around Warby Parker's AR tech stack, including a large-scale migration from SceneKit to RealityKit and creating a standalone AR framework.
- Architected several AR experiences, such as glasses removal and themed Easter eggs for virtual try-on, enhancing user engagement and brand interaction, including collaborations with Marvel and Sony for the Spider-Man 2 (PS5) launch.

Zipari (September 2020 – July 2021)

Senior Software Engineer – iOS

- Development and maintenance of the iOS/Swift codebase at Zipari, a Health Tech Company.
- Senior Developer for Zipari's client-delivered and product-focused Mobile iOS Applications.
- Led several efforts and guidance for new features and processes to improve the tech stack.

Paperless Post (July 2015 – June 2020)

Senior Software Engineer – Mobile Platforms

- Development and maintenance of the codebase for Paperless Post's Mobile Applications.
- Objective-C/Swift/React Native brownfield app on iOS, plus greenfield React Native Android Application.
- Led several efforts and guidance for new features suggested by Apple in a yearly basis.
- Mentorship for junior developers in the Mobile Platforms team.

HomerLearning, Inc (October 2014 – May 2015)

Lead Software Engineer – iOS

- Maintenance of existing codebase for an iPad videogame/application hybrid that teaches kids to read.
- Implement new features within a month or bimonthly release schedule to the iOS App Store.
- One man tech team (development and engineering, under the CTO).

AnyoneGame, Inc (August 2013 – September 2014)

Lead Software Engineer - iOS

- Maintenance & development of the codebase for a mobile game/karaoke app with over 200K+ users, 1K+ active users.
- Took two apps from idealization to AppStore, that featured video sharing and social networking features.
- Implement new features within a month or bimonthly release schedule to the App Store.
- One man tech team, after the original developer left. (development and engineering on Mobile, responding directly to the co-founders).

FreshPlanet, Inc (September 2010 – July 2013)

Software (Game) Engineer, Technical Lead

- Programmed front-end/gameplay of several social/mobile games, released on platforms like Facebook Canvas, iOS, Android.
- Implemented gameplay on ActionScript 3.
- Developed Adobe AIR Native Extensions for iOS and Android in Objective-C/Java.
- Worked with game designers, artists and management departments, providing valuable insight into making decisions affecting the development of the company's games.

Carnegie Mellon University (January 2010 – August 2010)

Various Roles

I worked for Carnegie Mellon University's Entertainment Technology Center with several projects.

One of them was programing and expanding a tool for museum staff to create augmented reality exhibits without writing code. Programmed in C++ using OpenGL, OpenFrameworks, and Qt.

I also co-taught a game development undergraduate course and thesis advisory as part of a semester-long exchange between Carnegie Mellon University and the Universidad de Monterrey (Monterrey – Mexico).

EDUCATION

2008 – 2009 MASTER OF ENTERTAINMENT TECHNOLOGY

Entertainment Technology Center, Carnegie Mellon University

Degree jointly conferred by Carnegie Mellon University's College of Fine Arts and School of Computer Science.

Students enrolled in this program learn interdisciplinary skills in design, art and technology, and are prepared for environments where artists and technologists work hand-in-hand, such as theme parks, interactive museum exhibits, website design and development, and the creation of video games.

2000 – 2005 COMPUTER AND SOFTWARE ENGINEERING

Universidad de los Andes, Bogota, Colombia

Focus: Real-time computer graphics.

Graduation Project: Proof of concept of a Game using the Mobile 3D Graphics API for J2ME (JSR-184)

SKILLS

INDUSTRY KNOWLEDGE

<ul style="list-style-type: none">• Software Engineering• Mobile App Development• iOS Development• Game Development• Game Design• Computer Graphics	<ul style="list-style-type: none">• Agile• Agile Methodologies• Scrum• Lean• UML• TDD
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TOOLS AND TECHNOLOGIES

<ul style="list-style-type: none">• Xcode, Visual Studio Code• Cocoa Touch, SwiftUI.• Unity, Godot• React Native, Redux• GraphQL, RESTful API• Git	<ul style="list-style-type: none">• Swift, Objective-C• C#, GodotScript• TypeScript, FlowType, JavaScript (ES6)• Python, Ruby, ActionScript 3.
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OTHERS

- Proficient in SwiftUI.
- Experience with ARKit, SceneKit, and RealityKit for AR development.
- Database languages: SQL, MySQL, PostgreSQL.
- Web development: HTML, CSS, XML, JSON.

PROJECTS & COURSEWORK

CARNEGIE MELLON UNIVERSITY - ENTERTAINMENT TECHNOLOGY CENTER [Fall 2009]

Lead Designer and Engineer – Project ORCAS

Worked with the California Academy of Sciences to conceive a 5 year long plan to develop various interactive and didactic exhibits using the concept of gamification to increase visitor retention and engagement.

CARNEGIE MELLON UNIVERSITY - ENTERTAINMENT TECHNOLOGY CENTER [Spring 2009]

Software Engineer and Designer – Sketch-It-Up!

Student-pitched project that aimed to allow game developers to “sketch” game ideas easily and quickly. My duties were user interface design and development. Developed in Python using the Panda3D game engine.

CARNEGIE MELLON UNIVERSITY - ENTERTAINMENT TECHNOLOGY CENTER [Fall 2008]**Programmer – Patient Experience**

Developed gaming based recovery exercises to be used in the days following a total hip or knee replacement surgery. Used C# and ActionScript 3.

CARNEGIE MELLON UNIVERSITY – ENTERTAINMENT TECHNOLOGY CENTER**Game Design (Spring 2009)**

Designed and created games in multiple formats following methods taught by CMU faculty and Game Designer Jesse Schell.

CARNEGIE MELLON UNIVERSITY – ENTERTAINMENT TECHNOLOGY CENTER**Building Virtual Worlds (Spring 2008)**

Participated in the design and creation of live virtual worlds, (interactive experiences) each one developed within two weeks working with multidisciplinary teams composed of four individuals.

Worked as a Designer and Programmer for every world. (Python and Panda3D game engine)

UNIVERSIDAD DE LOS ANDES – DEPARTMENT OF COMPUTER SCIENCE/ SOFTWARE ENGINEERING**Graduation Project (Spring 2006)**

Developed proof of concept of a Java game using the Mobile 3D Graphics API for J2ME (JSR-184)

PUBLICATIONS

Bulut Karakaya, Camilo Garcia, Daniel Rodriguez, Manoj Nityanandam, Nadia Labeikovsky and Theyab Al-Tamimi "Sketch-It-Up! Demo", Lecture Notes in Computer Science: Entertainment Computing – ICEC 2009 (2009): 313-14 Print.