BRANDON KNIERIEM

San Francisco Bay Area, CA | (860) 884-0462 | brandonknieriem26@gmail.com

bknieriem.com ♦ linkedin.com/in/brandonknieriem ♦ github.com/bknie1

Professional Summary

Enthusiastic, agile, full stack software engineer skilled at technical leadership, the software development lifecycle, design, and user experience research. Actively seeking an entry level position with a progressive organization that crafts meaningful experiences with Unity, virtual reality, and more. Excited to be part of a team that values creative contributions and values a full development, design, and UX skill set.

Skills

- Data structures and algorithms
- Object oriented programming
- Schema and object model architecture
- Declarative programming
- Unity and GameMaker Studio
- Virtual reality
- Educational games / "Edutainment"
- Product development
- Design and UX process maturity
- Agile project management

Game-Related Work History

Computer Science Research Assistant

Jun 2015 - Sep 2017

UNHcFREG

West Haven, CT

- Independently developed Symmetrics; educational security game used to teach dozens of high school students in NSA funded cyber camp
- Created VRAC-MAN (GRAB VR), virtual reality implementation of the arcade classic. Enjoyed by hundreds, including the President, in booth at the annual alumni fundraising ball
- Developed PresentVR, a mobile virtual reality professional development tool to practice public speaking
- Supported department members with administrative, research and academic assistance
- Led Artifact Genome Project; NSA-funded forensic artifact database
- Collected, tested, analyzed and catalogued more than 500 forensically interesting digital artifacts including Steam, SteamVR artifacts
- Published research on use of default passwords in database management systems
- Supervised undergraduate students working on research projects

Environment: Virtual Reality, SteamVR, Google Daydream, Unity SDK, RPG Maker, Gamemaker Studio, Kali Linux, Autopsy, LaTeX, Django, MongoDB, Windows, Mac OS, Ubuntu Linux, Google Forms

Additional Work History

Full Stack Software Engineer

Jun 2018 - Mar 2020

AthleteReg

Easthampton, MA / Remote

- Collaborated on all stages of systems development lifecycle, from requirements gathering to production releases
- Designed, prototyped, implemented, and tested dozens of director and participant features for duration of two-year, mobile first, redesign initiative for athletereg.com and its portals (e.g. BikeReg)
- Created style guide, style sheet, snippets, feature designs, and prototypes
- Wrote over 70 automated feature tests for style regressions and web driver tests
- Collaborated with developers and performance engineers to enhance supportability and identify performance bottlenecks
- Mentored newer engineer on front end implementation and best practices
- Led design and UX maturity for company; created new policies and procedures based on best practices to achieve iterative, human-centered design
- Gathered and defined customer requirements to develop clear specifications for creating well-organized project plans
- Evaluated project requirements, specifications and developed software applications that surpassed client expectations
- Discussed project progress with stakeholders, collected feedback on different stages and directly addressed concerns
- Translated technical concepts and information into terms interdisciplinary stakeholders could easily comprehend
- Contributed ideas and suggestions in team meetings with developers, stakeholders and delivered updates on deadlines, designs and enhancements
- Walked internal staff through troubleshooting steps to resolve common software issues

Environment: HTML, CSS3, Sass, JavaScript, jQuery, jQuery UI, Telerik, CKEditor 4, VB.NET, Visual Basic, Custom Controls, Entity Framework, Microsoft SQL Server, Gulp.js, Backstop.js, Selenium Web Driver, C#, NUnit, Xamarin, Team Foundation Services, Visual Studio, Resharper, Adobe XD, Adobe Photoshop, JIRA, legacy browser compatibility

Software Engineer Intern

Oct 2017 - Jan 2018

Acuity Brands Lighting

New Haven, CT

- Sustained SensorView portal; used for commercial smart lighting control
- Developed new Virtual WallPod WiX Toolset installer and integrated into SensorView package process using MSBuild
- Supported software engineering projects in Agile work environment
- Collaborated effectively with members of software development team and personnel in other departments
- Partnered with company mentor to learn best practices in software design

- Prepared, submitted report and other documentation to assist development team members with future installer projects

Environment: HTML, CSS, JavaScript, ASP.NET, C#, Entity Framework, MSBuild, Azure, NUnit, Whitelist Scripts, Python, WiX Installer Toolset, Git, Adobe Photoshop, Visual Studio, Sublime Text, Microsoft Team Services

Computer Science Teaching Assistant
Sep 2016 - Sep 2017

University of New Haven
West Haven, CT

- Supported student learning objectives through personalized and small group assistance
- Organized and guided activities for students, including group study sessions, one-on-one tutoring sessions and collaborative exercises
- Tutored struggling students individually and in small groups to reinforce learning concepts
- Supported classroom activities, including tutoring, grading homework and reviewing exams
- Coordinated Project Lead the Way professional engineering development for elementary and secondary school teachers

Environment: C, C++, Java, Python, Git, Dropbox, Visual Studio, Sublime Text

PLC Software Engineer Intern
Sep 2016 - May 2017

ASSA ABLOY Door Group LLC
West Haven, CT

- Worked with team of interdisciplinary engineers to design and develop PLC assembly line solution that will mitigate $500,000 in scrap loss each fiscal year
- Collaborated with stakeholders to derive user requirements and create specifications
- Programmed embedded software logic using function block diagrams and structured text using Unity Pro
- Constructed ergonomic work bench for assembly line operators

Environment: Modicon PLC, Function Block Diagrams, Structured Text, Ladder Logic, Java, Raspberry Pi, Eclipse, Unity Pro

Selected Projects

Symmetrics
May 2016

Educational, digital and physical security game used to educate high school students attending NSA funded cyber camp at the University of New Haven. Created narrative, core loop, non-linear story paths, a secret ending, live original soundtrack, and character assets. Repository / Images, Video

Environment: RPG Maker, Fruity Loops, Gimp, Kali Linux

PresentVR
February 2018

Virtual reality simulation software that allows users to practice public speaking on their mobile VR capable Android device. Repository / Images, Video

Environment: C#, Unity SDK, Google Daydream, Visual Studio Code

VRACMAN (Grab VR)

October 2016

Room-scale virtual reality experience based on arcade classic. The controller is VRACMAN. Players navigate the space, grabbing pills and avoiding ghosts. Features dynamic soundtrack based on game events. Created low-poly assets in Blender and original electronic soundtrack. Co-created with Philip Levine. Closed source, demo on request

Environment: C#, Unity SDK, SteamVR, Blender, Fruity Loops

SpaceJack

December 2016

Remixed implementation of Space Invaders; the classic arcade game. Created GUI, high score system, defender movement, multiple alien types, moving shields, original soundtrack, and more. Repository

Environment: GML, GameMaker Studio, Gimp

Sudoku

January 2017

C++ console implementation of Sudoku with undo/redo stack functionality, bitwise operations to track move validation, and ordered object construction and destruction. Repository / Images

Environment: C++, GCC, Visual Studio, Mac OS

MuseVR

March 2018

Mobile and room-scale virtual reality music experience. Ported to the Google Daydream from SteamVR so that it could be accessible at interviews. Repository / Images, Video

Environment: C#, Unity SDK, Google Daydream, SteamVR, Visual Studio Code

Dark Heaven

May 2016

A 2.5D "metroidvania" vision-limited platformer. Players navigate with light and sound to traverse an ethereal labyrinth. Programming team leader that also implemented movement, ranged projectile attacks with particle effects, and designed a usability feature to allow those hard of hearing or deaf to still enjoy the game. Closed source, work-in-progress

Environment: Unity SDK, C#, Visual Studio Code

Backlogged

March 2020

A full stack JavaScript web application. Upload, track, and comment on video games. Features user account creation, authentication, and permission evaluation. Repository, Live Link

Environment: HTML5, CSS3, JavaScript (ES6+), Node.js, Express.js, Embedded JS, Passport.js, MongoDB, Visual Studio Code, GoormIDE, Heroku

AthleteReg 2018-2020 Redesign

June 2018 – March 2020

Site wide director and participant redesign across all sport portals. Mini Portfolio, Live Link

Environment: HTML, CSS3, Sass, JavaScript, jQuery, jQuery UI, Telerik, VB.NET, Gulp.js, Backstop.js, Selenium Web Driver, Adobe XD, Adobe Photoshop

Education

UXQB Certified Professional for Usability and UX (CPUX-F)

May 2019

International Quality Institute — Boston, MA

Master of Science: Computer Science

Jan 2018

University of New Haven — West Haven, CT

Master of Science: Criminal Justice – Digital Security and Forensics

Dec 2016

University of New Haven — West Haven, CT

Bachelor of Arts: Sociology

May 2013

Eastern Connecticut State University — Willimantic, CT