Brandon Knieriem

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**Professional Summary**

Enthusiastic full stack software engineer skilled at technical leadership, the software development lifecycle, design, and user experience research. Actively seeking front end and full stack opportunities with progressive organizations using modern tech such as JavaScript (ES6+), React, Node.js, Ruby, MongoDB, and more. Excited to be part of a team that values creative contributions and leverages a full development, design, and UX skill set.

**Skills**

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| --- | --- |
| * Design and UX process maturity * Data structures and algorithms * Object oriented and functional programming * Schema and object model architecture * Declarative programming | * RESTful routing * Promise lifecycle * API interaction * Agile, product-driven development * Mobile-first, responsive design |

**Work History**

**Full Stack Software Engineer, UX Researcher, UI Designer** Jun 2018 - Mar 2020

AthleteReg Easthampton, MA

* Led design and UX maturity for company; created new policies and procedures based on best practices to achieve iterative, human-centered design
* Designed, prototyped, implemented, and tested dozens of director and participant features for duration of two-year, mobile-first, responsive, redesign initiative for athletereg.com and its portals (e.g. BikeReg)
* Created style guide, style sheet, snippets, feature designs, prototypes, consumed by development team
* Wrote over 70 automated feature tests for style regressions and user-simulating web driver tests
* Collaborated with developers and performance engineers to enhance supportability and identify performance bottlenecks; particularly regarding visual assets
* Mentored newer engineer on front end implementation and best practices

**Environment:** Legacy VB.NET Stack: HTML, CSS3 / Sass, JavaScript / jQuery / jQuery UI, Entity Framework, Microsoft SQL Server, Telerik Controls Library, Gulp.js, Backstop.js, C# Selenium Web Driver, Adobe XD, Adobe Photoshop, BrowserStack, NUnit, Xamarin, CKEditor 4, Team Foundation Services, JIRA

**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:** C# ASP.NET Stack: WiX Installer Toolset, MSBuild Scripting, Python Whitelist Scripting, Entity Framework, Azure, NUnit, Git, Adobe Photoshop, 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, Adobe Photoshop / Illustrator

**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 PLC Programming Software

**Computer Science Research Assistant** Jun 2015 - Sep 2017

UNHcFREG West Haven, CT

* Researched information regarding digital security to assist professors with academic pursuits
* Supported department members with administrative, research and academic assistance
* Led Artifact Genome Project; NSA-funded forensic artifact database
* Collected, tested and analyzed more than 500 forensically interesting digital artifacts
* Managed databases and input data to update records
* Published research on use of default passwords in database management systems
* Supervised undergraduate students working on research projects
* Independently developed Symmetrics; educational security game used to teach dozens of high school students in NSA funded cyber camp

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

**Selected Projects**

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](https://github.com/bknie1/Backlogged), [Live Link](https://backlogged-app.herokuapp.com/)

**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](https://drive.google.com/file/d/16kCLJV8hTql7Iks4vHAthDHVJcObMvBZ/view), [Live Link](https://www.bikereg.com/)

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

PresentVR February 2018

Virtual reality simulation software that allows users to practice public speaking on their mobile VR capable Android device. [Repository](https://github.com/bknie1/PresentVR), [Video Portfolio Link](https://www.youtube.com/watch?v=vEUhsNKF7iI&list=PL7C04B2lmd7BhIxeOHdQ7_cQT7gc9OJlL&index=2)

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

Sudoku January 2017

C++ console implementation of Sudoku with undo/redo stack functionality, bitwise operations to track move validation, ordered object construction and destruction, and more. [Repository](https://github.com/bknie1/Sudoku)

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

**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