BRANDON KNIERIEM
SOFTWARE ENGINEER

contact

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education

Computer Science M.S.
University of New Haven
12.2017
TA: NSA GenCyber Camp, Introduction to Programming/C, Intermediate Programming/C++, and Introduction to ScriptProgramming/Python. Research fellowship.

Additionally
Criminal Justice M.S.   University of New Haven   **01.2016**
TA: Security Administration, Intro to Security Studies.

Sociology B.A.   Eastern Connecticut State University   **05.2013**
Alpha Kappa Delta, Engish Language Learner tutor.

technology

Languages
C, C++, C#, Java, Python3, HTML5, CSS3, JavaScript, TypeScript, SQL, JSON, XML, Ladder Logic, Structured Text

Frameworks and Libraries
jQuery, Bootstrap, Bulma, Sass, WiX Toolkit, sqlite

Platforms
Windows, .NET, Mac OS, Unity SDK, Unreal SDK, Modicon PLC, Rockwell Automation PLC, Arduino, Raspberry Pi, Kali Linux

Tools
Git, Sourcetree, Visual Studio, VS Team Services, NuGet Package Manager, nCrunch, Eclipse, Access, postgres, Koala, Blender, Creative Cloud, Fruity Loops Studio, XRY Forensics Kit

employment

Acuity Brands Lighting
.NET Software Engineer Intern
10.2017 - Present
Sustained Acuity's .NET SensorView web app through new feature implementation, debugging, and code review.

Developed a new Virtual WallPod WiX Toolset installer and implemented it into the daily build.

Maintained hardware, occupancy tracking, and behavioral tests for N Light Air.

UNHcFREG
AGP Project Lead, Security Researcher
06.2015 - 09.2017
Project lead for the *Artifact Genome Project*; a digital forensic artifact database.

Collected and analyzed hundreds of forensically interesting artifacts across multiple operating systems and popular software, including virtual reality platforms.

Published research on the use of Default Passwords in DBMS.

Independently designed and developed *Symmetrics*; an educational digital and physical security game.

Participated in ethical hacking and digital forensics course work.

Assa Abloy Sargent Lock
PLC Software Engineer Intern
09.2016 - 06.2017
Developed, prototyped, and tested PLC software with a team of interdisciplinary engineers to design a Modicon PLC assembly line solution that will mitigate $500,000 in scrap loss each fiscal year.

Designed an ergonomic work bench for assembly line operators.

selected projects

Virtual WallPod Installer
WiX Toolkit v. 3.11
12.2017
Developed the WiX Source file, WiX project file, and art assets.

Refactored the MSBuild project file to incorporate the new installer into the daily build for SensorView.

Hosted a lunch and learn to teach multiple software team members how to get started with WiX.
Available for private, guided demos.

Plant It!
Android Google Daydream Virtual Reality
11.2017
Player locomotion, interface, event scripting, 3D modeling.

Developed to inspire elementary aged girls to become STEM students. Won second place at the 2017 Google Developer Group Conference hackathon in New Haven, CT.
GitHub Repo

Mortise Lock Assembly PLC
Industrial Embedded Software System
09.2016
Developed functional, multi-threaded software through prototyping, testing, and deployment. Ergonomic assembly line operator pick to light solution using an embedded PLC system.
GitHub Repo

Sudoku
Advanced C++ Term Project
09.2016
Undo, redo, load, and save functionality. Multi-class, bottom-up board construction using advanced C++, objected oriented concepts, bitwise operations, binary file I/O, and destructors.
GitHub Repo