# Sam Hanson

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## Education

University of Minnesota - Twin Cities                                                    Anticipated May 2020
Bachelors of Arts in Computer Science, Leadership minor

## Work Experience

Code42                                                                                          Jan-Aug 2019
*Software Engineer Intern*
- Developed file monitoring app for 3rd-party applications (GDrive, OneDrive, Box, etc.) that security experts can use to monitor for suspicious activity
- Found exceptions in our application and wrote secure fixes
- Wrote unit tests to ensure correctness
- C#, SQL, Microsoft Azure, Git

Undergraduate Research Fellow - U of MN                                                          2017 - 2019
*Web Developer & Research Programmer*
- Develop web-based data visualization tools for high volume of environmental data
- Researched and implemented machine learning algorithms to classify various land features
- Google Cloud Platform, OpenLayers, PostGIS, Geoserver, Javascript, HTML, CSS, PHP, MATLAB, Python

Blueprint Solutions LLC                                                                       May-Sept 2018
*Software Implementation and Data Transfer Expert*
- Perform technical operations for specific client requests
- Troubleshoot with hearing health care providers to identify and fix any errors or bugs in their system.
- Transfer data across competitive systems to Blueprint OMS

## Activities

University of Minnesota Comedy Club, member                                               2018 - Present
University of Minnesota Run Club, member                                                  2016 - Present

## Skills

Multiple Programming Languages
- Python, Java, C, C#, C++, PHP, SQL, HTML, CSS, Javascript, MATLAB, OCaml

French Language
- Intermediate level

## Awards and Achievements

Conducting Cybersecurity Research                                                         2019 - Present
- Researching vulnerabilities and exploits in JavaScript Engines (WebKit, V8, Chakra, etc.) using advanced fuzzing techniques
- Currently taking CSCI5271: *Introduction to Computer Security* and INET4007: *Cloud Security*
- Next semester, taking CSCI5980: *Manual and Automated Binary Reverse Engineering*

Won the 2018 Software Design Competition                                                      October 2018
- Created a mobile and web application to increase citizen engagement in civic duty
- Various technologies used including Google Cloud Platform, the Vue.js framework, Javascript, HTML, Sass, Python, PSQL

Participated in the 2019 Minnehack (24hr competition)                                          Spring 2019
- Developed online marketplace for farmers to streamline the buying and selling of crops
- One of over 50 teams