Mark Buttenhoff

Software Engineer   **Sioux Falls, South Dakota**

🌐 mbhoff.com ✉ mbhoff@pm.me ☎ (605) · 201 · 8640 Ⓢ mbhoffdev

Skills

Programming Languages	C++, C#, Java, Javascript, Python, SQL, Lua
OS & Tools	Linux, Windows, Android, Git, Visual Studio, Emacs/Vim, Unity, OpenGL

Education

South Dakota School of Mines and Technology   **December 2018**
B.S. in Computer Science

Internships

Sanford Health   **June 2018 - August 2018**

· Wrote troubleshooting documentation for the hospital phone system, and planned a system for ordering phone equipment online. Installed and configured IP phones and server equipment for the hospital paging system.

Projects

Virtual Reality Paramedic Simulator - C#

· Virtual reality simulation tool for paramedic students developed for Google Daydream, Google Cardboard and desktop systems. Developed by a team of four, my responsibilities included displaying vitals information to the user interface, particle effects, and automated testing.

Image Editor - Lua

· Desktop image processing program with image contrast, gamma, brightness, posterization, pseudocolor, equalization, edge detection, and automated thresholding features.

Risk Strategy Game - Java/Android

· Two player Risk style strategy game for Android. Developed by a team of three, my responsibilities included writing code to initialize the game state, handling touch screen input, and drawing the gameboard to the screen.

Map Draw App - Java/Android

· Android app that used GPS and the Google Maps API to draw the user's walking path on a map, and used the phone's accelerometer to change the path color based on the phone's orientation.

Shortest Path Finder - C++

· Implementation of the A∗star search algorithm to find the shortest path between two positions on a gameboard.

Courses

- **Programming Languages**
- **Analysis of Algorithms**
- **Data Structures**
- **Database Management Systems**
- **Software Engineering**
- **Mobile Development**
- **Digital Image Processing**
- **GUI Programming**
- **Computer Organization and Architecture**
- **Cybersecurity**
- **Networking**
- **Operating Systems**

Leadership

- **SDSMT Association for Computing Machinery, Vice President**
- **SDSMT Software Engineering Course, Dev Ops Team Lead**
- **SDSMT Students for the Exploration and Development of Space, Chair**