# Bjørn Mathisen

# Software Engineer & Data Analyst



#### **Education**

## **Bachelor of Science in Computer Science**

Principia College, 2014-2018

#### Fire Science & EMT License

Elgin Community College, 2012-2014



# **Work Experience**

#### **General IT – Contract** Jan 2019 - Jul 2019 **Zerma**

- Wrote a Python web crawler to generate a database of 12 thousand contacts.
- Created a customer contact relational database in SQL to manage this data set.
- Used Microsoft Access to allow non-technical participants to pull from an SQL database for job function and improved workflow.

## Field Engineer - Contract Jan 2019 - Jul 2019 Zerma

- Traveled to automobile factories and installed large granulators and shredders.
- Wired and debugged complex electrical panels according to wiring schematics
- Dealt with plant managers and other crew leaders to facilitate the installation and moving of machinery.

# **Observatory Manager** 2015-2018 **Principia College**

- Organized and trained students in the technical operation of a research grade telescope.
- Wrote technical documents facilitating the operation of both novice and advances levels of operation.
- Conducted research with Dr.Laurance Doyle from NASA on the possibilities of double binary stars using research grade imaging software and telescope.

## **General Construction** 2012-2014 **Mchenry County**

- Performed general building maintenance and construction within a crew and alone.
- Developed a good work ethic and the ability to work with many different types of people.



#### **Contact Me**



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# **Activities and Projects**

## **EPROM Programmer, Project Medusa**

- Bridged the gap between the software and hardware teams to create a fully functional 8bit computer using integrated circuits.
- Exercised exhaustive debugging, teamwork, and organizational skills while helping both teams communicate.
- Programmed EPROMs with OP code.
- Achieved best performance in school history.

## **Modula-2 Compiler**

 Developed compiler in C# to compile Modula-2 code into MASM32 code.

## **Python Server/Client Chat App**

- Developed a UTC server to handle connections from a GUI client sending group messages back and forth.
- Programmed chat history and private messaging for users.
- Created a database to maintain a list of users and unsent messages.

#### **MIDI Music Tracker**

- Wrote custom triangle and sine wave functions to generate audio files.
- Developed a custom note tracker and file recording system for music track saving and loading.

Web Weekend Workshop
Spigot Plugin Developer
Experienced in Adobe & 360 Suites
Photographer, Astronomer, Hiker



# **Programming Languages/Tools**

Primary Language: C#, .Net & Python

**Familiar with:** C++, C, SQL, Java, Json, Assembly, XML, Junit, NUnit, Unit Testing,

**Some Familiarity:** LISP, Ruby on Rails, HTML/CSS, MongoDB, Kotlin, PHP, Latex