David Penn Zmick

+18322397385

dpzmick@gmail.com dpzmick.com

EDUCATION

B.S. in Computer Science, Minor in Mathematics

University of Illinois at Urbana-Champaign

Graduation: May 2016

GPA: 3.60

WORK EXPERIENCE

ExtremeBlue Technical Intern, IBM

Summer 2015

- Explore at—rest data encryption for Connections (social enterprise software)
- Understand the data security needs of IBM's cloud customers
- Use **NodeJS** to develop an encrypting file service for the Connections cloud
- Notable Libraries: Mocha, Q

Course Assistant, CS 241: Systems Programming

August 2014

April 2015

 \bullet Helped students with ${\bf C}$ programming language in office hours

• Taught Linux system concepts in discussion sections

$Software\ Development\ Intern,\ BP\ High\ Performance\ Computing\ Team$

Summer 2014

- ullet Demonstrated feasibility of **HDF5** for storage of seismic data
- Implemented a variety of **C MPI** programs to understand performance impacts of various data storage schemes
- Worked with large (terabyte) datasets on a Linux cluster

Systems Administration Intern, BP High Performance Computing Team

Summer 2013

- Performed systems administration tasks for 5500 node Linux cluster
- Evaluated software options for internal data warehousing solution
- Deployed Logstash + elasticsearch + Kibana system monitoring tool

Undergraduate Researcher, National Center for Supercomputing Applications

AUGUST 2012 APRIL 2013

- Learned how different types of information move through the Twitter network
- Created data visulizations using **Python** and **R**
- Other Technology: MongoDB, Ruby

NOTABLE PROJECTS

ANT SIMULATION

- Simulated movement of ants on a 2D grid with Erlang
- Four week final project for CS 242.
- Python and Matplotlib used for data visualization

STUDY GROUPS

- Simulated the formation of student study groups using **Haskell**
- Used **Python** and **R** for some automation and data vis

Set Game

• Implement generalized version of "set" card game in **OCaml**

McPlanr

- First place hackathon project at VandyHacks
- Use destinations from Google Maps and Nashville's open data project to plan a day in the city
- Relevant Tech: NodeJS, Angular, Facebook's Flow for Javascript