David Penn Zmick

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EDUCATION

Graduation: May 2016 B.S. in Computer Science, Minor in Mathematics University of Illinois at Urbana-Champaign GPA: 3.60 Work Experience ExtremeBlue Technical Intern, IBM Summer 2015 - Explore at-rest data encryption for Connections (social enterprise software) - Avoid trading collaboration features (collab. document editing) for security - 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 - Taught **Linux** system concepts in discussion sections - Helped students with C programming language in office hours Software Development Intern, BP High Performance Computing Team **Summer** 2014 - 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**

Notable Projects

ANT SIMULATION

- Simulated movement of ants on a 2D grid with **Erlang**
- Four week final project for CS 242.

- Other Technology: MongoDB, Ruby

- 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

For blog posts and source code see dpzmick.com/resume_links