David Penn Zmick

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EDUCATION

B.S. in Computer Science, Minor in Mathematics	Graduation: May 2016
University of Illinois at Urbana-Champaign	GPA: 3.60
Work Experience	
ExtremeBlue Technical Intern, IBM	Summer 2015
 Implement at–rest data encryption for IBM Connections to meet changin data security needs of IBM's customers 	g
 Avoid trading collaboration features (collab. document editing) for security Use NodeJS to develop an encrypting file service for the Connections cloud Notable Libraries: Mocha, Q, Restify 	
Course Assistant, CS 241: Systems Programming	August 2014
- Taught Linux system concepts in discussion sections	APRIL 2015
– Helped students with ${\bf C}$ 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 in	l-
pacts 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 $\mathbf{Logstash} + \mathbf{elasticsearch} + \mathbf{Kibana}$ system monitoring tool	
Undergraduate Researcher, National Center for Supercomputing Applications	August 2012
- Explored how different types of information move through the Twitter networ	k April 2013

NOTABLE PROJECTS

ANT SIMULATION

- Simulated movement of ants on a 2D grid with **Erlang**

- Created data visualizations using **Python** and **R**

- Four week final project for CS 242.

- Other Technology: MongoDB, Ruby

- ${\bf Python}$ and ${\bf Matplotlib}$ 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