

## DAVID THOLE

### Permanent Address

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## EDUCATION

*Master of Computer Science*, focus: Data Mining and Knowledge Discovery  
The University of Iowa Spring 2012

*Bachelor of Science*, Computer Science  
The University of Iowa Spring 2005

## PROFESSIONAL EXPERIENCE

*Senior Application Developer - College of Pharmacy* 06/13 - CUR  
The University of Iowa, Iowa City, IA

- Worked both individually, and in small teams as the technical lead, to develop software solutions for use by the COP and others.
- Created a new Electronic Syllabus system (NewView), which is used to help with accreditation and mapping.
- Created an Asset Management system, used to track non-capital assets.
- Supported multiple departments with their 3rd party apps (mostly in Microsoft Access).
- Managed, or helped to manage 4 different SQL Servers. Some of them in an isolated UIP environment.
- Helped to support research done through using Helium/Neon and their own systems.
- Some miscellaneous help desk support when needed.
- Managed the IIS servers for both test and production environments. Migrated on-premise systems to Microsoft Azure
- Developed PharPeople, a population listing of who all should be part of pharmacy. This takes in data from IDW, HR, AD, and APR, applies business rules and gives a single population of people. This is primarily used on the website, but there are plans to make this the definitive list for all pharmacy applications.

*Application Developer - Center for Bioinformatics and Computational Biology* 08/10 - 06/13  
The University of Iowa, Iowa City, IA

- Worked with both individually, and in small teams, to develop tools which would facilitate the analysis of genomic data. Some tools include pipeline processes, scripts, and web tools.
- Worked specifically with the newest areas of genomics, including analysis of data through tools such as BWA, Bowtie, bfast, gatk, and genome toolkit.
- Learned and worked with optimization problems, including the use of of the incredibly optimized UNIX/Linux tools for doing as much data manipulation as possible.

*Application Developer - Research Information Systems* 11/06 - 12/10  
The University of Iowa, Iowa City, IA

- Maintainer of the largest in-house application, UIRIS, which is a research administration application written in PHP.
- Developed over four large feature-set upgrades to individual sections of both UIRIS as well as stand-alone applications that took between 2-8 months each.

- Acted as project manager, leader, developer, and DBA in many situations as they were needed. Experience in using PHP, Ruby, Microsoft SQL Server 2008.
- Met with stake holders to gather requirements, develop time lines, plan releases, and coordinate testing.
- Lead 3 individuals over time; including one undergraduate, one graduate, and one full-time individual. Leadership included managing workload, coaching and determining performance.
- Was active on multiple hiring committees for both students and staff members.

Application Developer - Townnews.com  
Moline, IL

10/05-11/06

- One of two developers on the largest in-house application, Newsys, which is a news-site CMS which is written in PHP.
- Also acted as the sole maintainer of a fairly large application called Autosys.

#### ACTIVE COMPUTING SKILLS

- **Programming Languages:** C# (5yr), F# (2yr), Javascript/TypeScript (7yr), Common Lisp (9yr), Html/CSS/Bootstrap/etc (10+yr), R (4yr)
- **Databases:** MSSQL (7yr - Inc: SSRS, SSIS, performance)
- **Operating Systems (in order of familiarity) :** Linux (Favorite: Arch/Gentoo, but use Ubuntu too), OSX (10.3+), Windows (All client, 2003 server, 2008 server)
- **Cloud/Web Solutions/other :** Microsoft Azure (3yr), Visual Studio Online (3yr), Github (8yr), Docker (3yr)
- **Concepts:** Project Management (Agile, Waterfall - requirements gathering, user stories, etc), Design Patterns (MVC, DA, etc), Data Mining/Text Mining (main focus in grad school), Some graphic design (weaker than my other skills), Advanced Unix Tools (sed/awk/etc), Git/SVN

#### INACTIVE COMPUTING SKILLS

- **Programming Languages:** C/C++/Visual C++ (2yr), Ruby (1yr), Visual Basic (2yr), Delphi/Pascal (3yr), Java (1yr), Python (Django Framework - 2yr), ELisp (3yr), PHP (6+yr), Perl (1yr)
- **Databases:** MySQL (4+yr), PostgreSQL (1yr)
- **Concepts:** Helped with the maintenance and setup of the UISSP (University of Iowa Student Supercomputer Project).

#### MEMBERSHIPS and TALKS

Presented at Iowa Code Camp five times (two over R, one over Python/Django, one over Common Lisp, one over Azure)

Active member in i380 (SQL Server), spoke one time over C#/MVC

Spoke at the UI Developer Community over Python/Django, and C#/MVC

Active leader of the R Users Group at the University of Iowa

Active member of TechCorridor.io

#### HONORS

Dean's List (multiple years)

John Phillips Sousa Award

**INTERESTS**

Project Euler  
Open Source Development  
Reading and Music  
Studying/Learning Japanese (written primarily, oral some)  
Calligraphy