

Tyler Worman
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Career Goal:

To continuously learn as I design useful computer systems to solve complex problems related to data.

Technical Skills:

Operating Systems: Linux, Mac OS, Unix (HP-UX/Solaris), Windows
Software/Skills: AJAX, CSS, data visualization, EPIC EMR, Google App Engine, GTK, Hadoop, HTML, Informatica ETL, Infosphere Streams, MicroStrategy BI, MySQL, Netezza, Oracle 12c, SharePoint, Spark, web services
Software: Eclipse, ER Studio Data Architect, Informatica Designer/Workflow Manager, IntelliJ, MicroStrategy Desktop/Web, SQL Developer, SQL Navigator, Visual Studio, webMethods Developer
Programming Languages: ActionScript, ASM, C, C++, C#, ColdFusion, Java, Javascript, NZPLSQL, OpenGL, Perl, PHP, PL/SQL, Python, Rust, SQL, Streams Processing Language, Visual Basic .Net

Project Experience:

Data Warehouse Development (Jul 11 – Current): University Of Michigan Health System, Ann Arbor, MI
Create and maintain data models for warehouse subject areas based on EPIC EMR. (Revenue Cycle, Cadence, ADT, Work Queues, Orders, and Medications). Design, develop, code review, deploy, and test Oracle PL/SQL ETL created to populate the warehouse. Designed and developed custom change data capture system for EPIC Clarity.

Big Data Platform Development (Dec 14 – Aug 2016): University Of Michigan Health System, Ann Arbor, MI
Designed, developed, and documented the platform to be used for Big Data within University of Michigan Health System. Enabled researchers to perform analysis of critical care streaming EKG data in real time. Utilized Hadoop, IBM Netezza, IBM Infosphere Streams, Java, Python, HTML, and Javascript to build a toolkit for consuming, processing, and presenting results in a standardized manner.

Contributing Author (May 14 – Sep 2015): Maker Media Inc, Sebastopol, CA
Authored articles documenting projects for a print magazine, book and web publication. Developed hardware and software projects using embedded microcontrollers, parallel processing, and dedicated real time control units.

Data Warehouse Development (Dec 09 – Jul 11): PPL Corporation, Allentown, PA
Designed, developed and tested C#/VB.Net UI, Java/.Net web services, Informatica ETL, MicroStrategy BI architecture, dashboards, intelligent cubes, and reports for a new trading transaction and finance data warehouse. Directed and supervised resources developing client applications to manage meta-data within a data warehouse.

Energy Trading Floor Support (Jan 06 – Dec 09): PPL Corporation, Allentown, PA
Directly contributed to securing millions in profit by developing software using Java, AJAX, Perl, .Net, Oracle, and webMethods integrations. Identified needs of users, created distributed computing scheduler (DAYZER) and applications that automated real time bidding, tracking of trades, financial reporting, and performed modeling/analysis of energy markets using Agile software development methodologies.

Application Development Architecture Proof of Concept (May 06 – Dec 06): PPL Corporation, Allentown, PA
Developed SQL Server Reporting Services functionality for a project tracking application used by hundreds in IT.

CS 334: System Design & Implementation (Feb 06 – May 06): Moravian College, Bethlehem, PA
Project group lead for implementation of a GTK/OpenGL user interface for custom geographical mapping software.

Honors Research Project (Dec 05 – Dec 06): Moravian College, Bethlehem, PA
Examined network routing algorithms by modeling a specific network topology. Software developed found the most efficient algorithm for use on specific topologies under various load/traffic conditions.

Professional Experience:

Maker Media Inc, Sebastopol, CA: Contributing Author (May 14 - Sep 2015)
University Of Michigan Health System, Ann Arbor, MI: Senior Data Architect (Jul 11 - Current)
PPL Corporation, Allentown, PA: Senior Application Developer (May 05 – Jul 11)

Education:

Moravian College, Bethlehem, PA
Bachelor of Science in Computer Science with Honors, Dec 06
GPA: 3.32

Continuing Professional Development:

Board member - 501c3 Makerspace and collaborative work area (Oct 13 - May 17): All Hands Active, Ann Arbor, MI
Developed and ran fundraiser to cover costs of relocation, facilitated planning, construction contracts, and orchestrated communication between staff and building manager. Actively recruited members and donors. Performed recruitment, training, and managing of staff.

Member of the Healthcare Data Analytics Association (Jan 13 - Current): HDAA

Certified ITIL Foundation in IT Service Management (Jun 11): PEOPLECERT Group

Founded Make Lehigh Valley – Makerspace and collaborative work area (Mar 10): Make Lehigh Valley, Allentown, PA
Developed membership, attracted corporate economic development sponsor. Procured office space for starting the organization. Actively recruited members and donors.

ScrumMaster - Certified ScrumMaster for Agile software development framework (Nov 09): Scrum Alliance

Member of the Association for Computing Machinery (Sep 02 – Current): New York City, NY

President of the Moravian College Association for Computing Machinery (04 - 06): Moravian College, Bethlehem, PA

Publications and Posters:

Waves in a Data Lake: Real-time Predictive Analytics with Waveform Data and Big Data Tools (Oct 15) - HDWA 2014
Presentation discussing Medical Center pilot of Big Data technologies and tools used to capture real time EKG waveforms and perform predictive calculations and alerting on the gathered data in real time.

The best of Make: 65 projects and skill builders from the pages of Make:, Volume 2: (Sep 15) - Make:
Book publication explaining end mills for CNC machines. Extended and revised version of Magazine article. Provides beginner level explanation and visual aids that demonstrate the different types and uses for end mills.

Internet Speedometer, Volume 44 (Apr 15) - Make: Magazine

Magazine publication explaining configuration of an embedded system for a microcontroller which monitors network traffic. Developed hardware drivers for a digitally controlled strip of LEDs. The drivers for the hardware were written in assembler and controlled outputs on real time programmable processing cores on a TI microcontroller.

Data Warehouse Processing Reduction Strategies When Extracting from EPIC Clarity (Oct 14) - HDWA 2014

Poster demonstrating various strategies to reduce processing time when extracting data from EPIC Clarity daily.

Presented a PL/SQL package designed and developed within University of Michigan Health System. The software package implements these strategies and combines them to perform an optimal extract. Demonstrated performance increases greater than 5x when compared to full extracts from the source system.

The Skinny on End Mills, Volume 40 (Aug 14) - Make: Magazine

Magazine publication explaining end mills for CNC machines. Provides beginner level explanation and visual aids that demonstrate the different types and uses for end mills.