

SOURCING AND ALIGNING SKILL SETS USING EMPLOYER DATA

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MIDWEST CENTER FOR IT

Consortium of 10 Community Colleges in Nebraska, Iowa, North and South Dakota and the AIM Institute (an Omaha not-for-profit)





THE AIM INSTITUTE

- Lead Organization for Midwest Center for IT
- Regional Not-for-Profit based in Omaha
- Mission is to leverage IT for individual, community and business growth



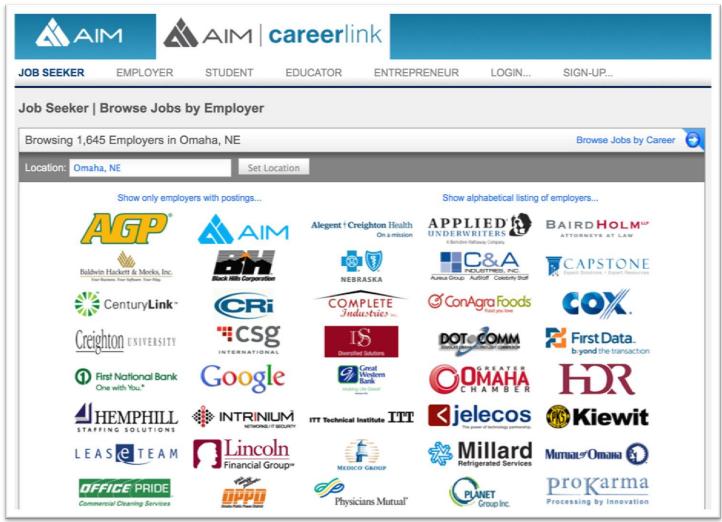


AIM'S OUTREACH

- Conducts research on workforce and IT pipeline trends
- Over 2000 youth with technology and college prep programs
- Hosts Infotec, an annual national IT conference
- Hosts a series of IT trainings for educators and business
- As a part of this mission, Careerlink.com was established in 1995











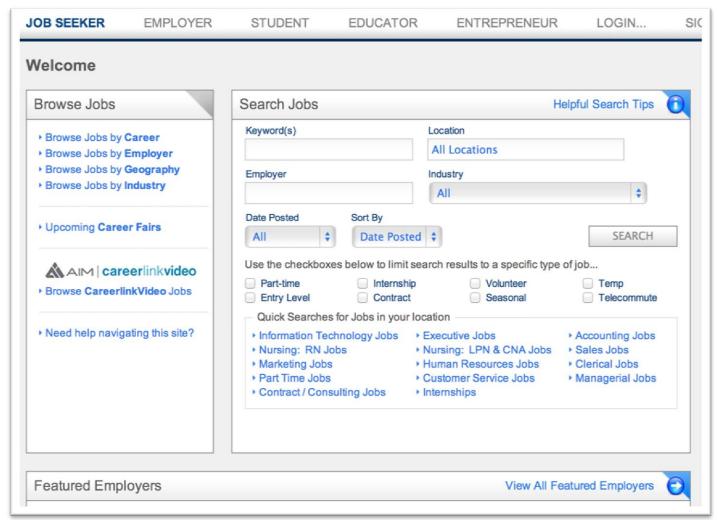
CAREERLINK

Regions largest online job resource with:

- 2,650 employers in the region
- 7,500 jobs at any given time in the region
- 225,000 user sessions per week
- Jobs are 85% within our service region: NE, IA, ND, SD











CAREERLINK ALLOWS OUR CENTER TO:

- Make stronger connections with students and industry
- Situate learning in the larger context of industry needs and regional employment
- Allow for longitudinal tracking of students to determine the impact of the scenarios on students







Skills Required fields are displayed with a red asterisk (*).

Click for instructions...

Skills

- Teambox
- Tungle.Me
- ☐ IT Data Communications / Networking
 - Cisco
 - Combined Information Data Network Exchange (CIDNE)
 - · Data Communications / Networking
 - Data Infrastructure
 - · Data Network Design
 - Fiber Distributed Data Interface (FDDI)
 - HP Procurve
 - IGRP/EIGRP
 - Interior Gateway Protocol (IGP)
 - LAN/WAN
 - Messaging
 - Multicast Border Gateway Protocol (MBGP)
 - Network Infrastructure

Selected Skills

- LAN/WAN
- Multicast Border Gateway Protocol (MBGP)
- Private IP
- TCP/IP
- VOIP
- Combined Information Data Network Exchange (CIDNE)





SKILLS

Because employers choose skills and certifications that they want when the post jobs, Careerlink also gives us great information on the skills that are in demand in our region.





RESEARCH QUESTIONS

- What were the top IT job skills in Careerlink job postings over the past year?
- How do these IT job skills vary by industry, such as IT vs. manufacturing / distribution?
- How do these IT job skills vary by company size?
- How do the Careerlink IT job skill trends compare to national data?





METHODOLOGY

- Reviewed all job postings in Careerlink over the past year (July 17, 2012 – July 17, 2013)
- Specifically looked at job postings that identify IT skills and certifications
- Analyzed results by industry and company size





RESEARCH STRENGTHS & LIMITATIONS

Strengths

- Real-time, up-to-date information on job openings and IT skill trends
- Enables the development and tweaking of occupational/educational programs to match job market needs
- No duplicates; each job is unique
- Ability to view job skills by a variety of factors including industry, company size, location, job title, etc

Limitations

- Not all job openings are listed on Careerlink
- Some job openings have incomplete information about desired skills





DESCRIPTIVE STATISTICS

Jobs posted on Careerlink in the past year	233,069
Jobs with defined IT skills	15,327
IT skills associated with those jobs	122,467
Companies	827
Job titles	3,213
Industries	58





MOST REPRESENTED JOB TITLES

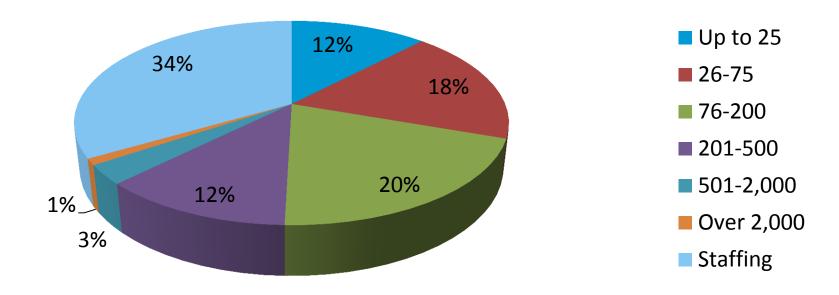
- Software Developer
- Database Administrator
- .NET Administrator
- .NET Developer
- Java Software Engineer
- Web Developer





COMPANY SIZE

Number of Employees







MOST REPRESENTED INDUSTRIES

- Information Technology
- Financial Services
- Human Services
- Healthcare / Wellness / Fitness
- Manufacturing / Distribution
- Staffing



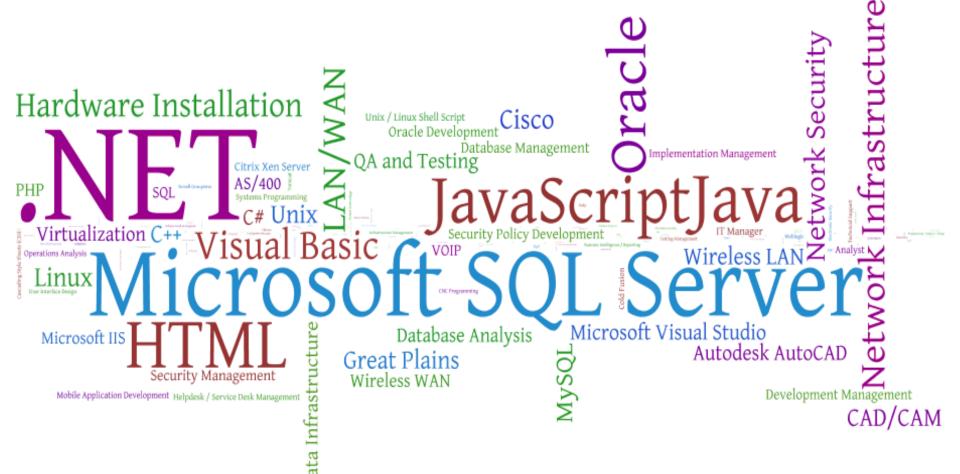


RESEARCH QUESTION #1

What were the top IT job skills in Careerlink postings over the past year?



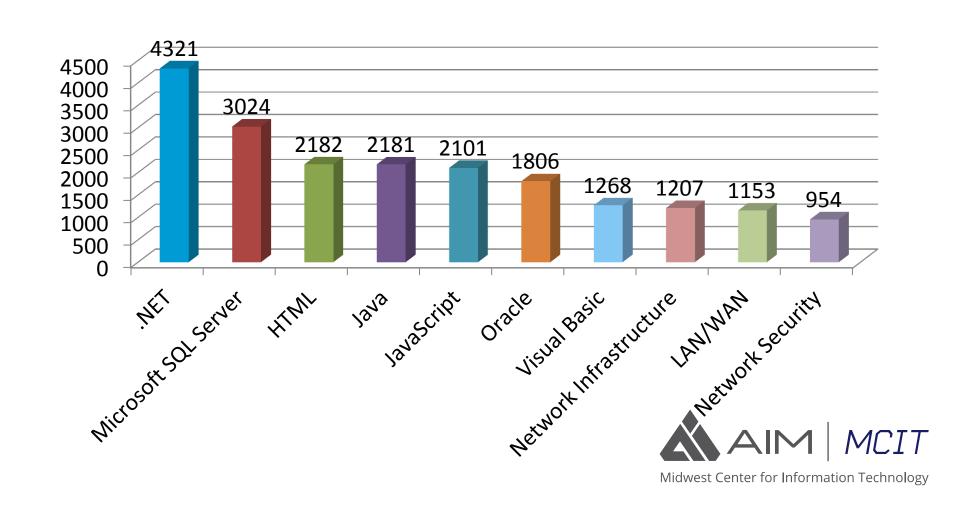








TOP IT JOB SKILLS





GENERAL SKILLS

Microsoft

- Office
- Windows Desktop
- Access
- Project

Apple Mac OS X

Adobe

- Acrobat
- Creative Suite
 - Photoshop
 - InDesign





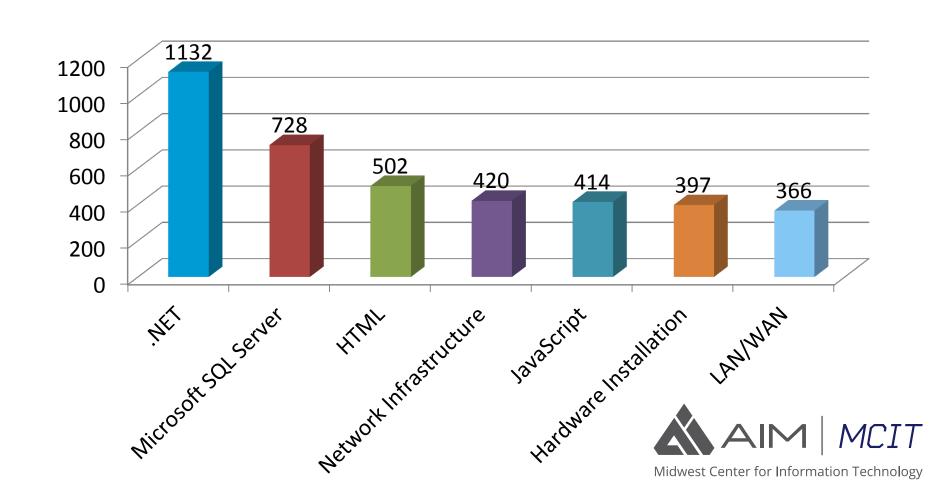
RESEARCH QUESTION #2

How do IT job skills vary by industry, such as IT vs. manufacturing / distribution?



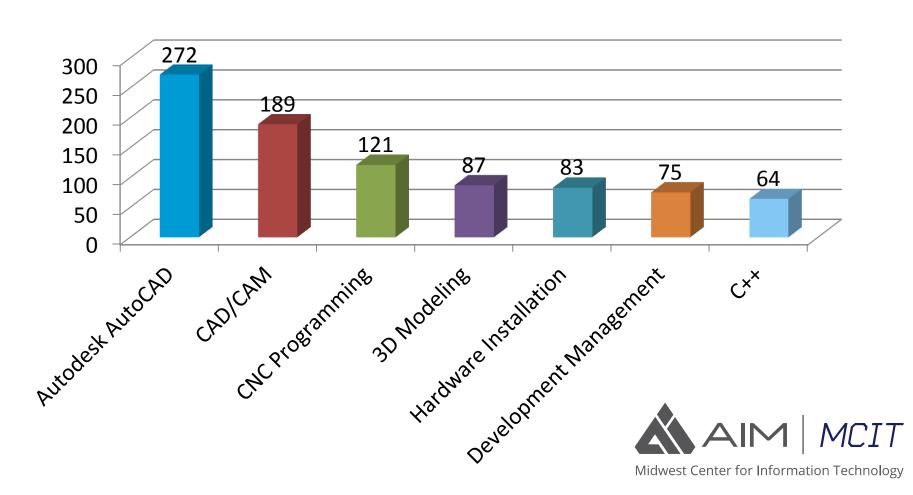


TOP IT JOB SKILLS BY INDUSTRY: IT





TOP IT JOB SKILLS BY INDUSTRY: MANUFACTURING & DISTRIBUTION





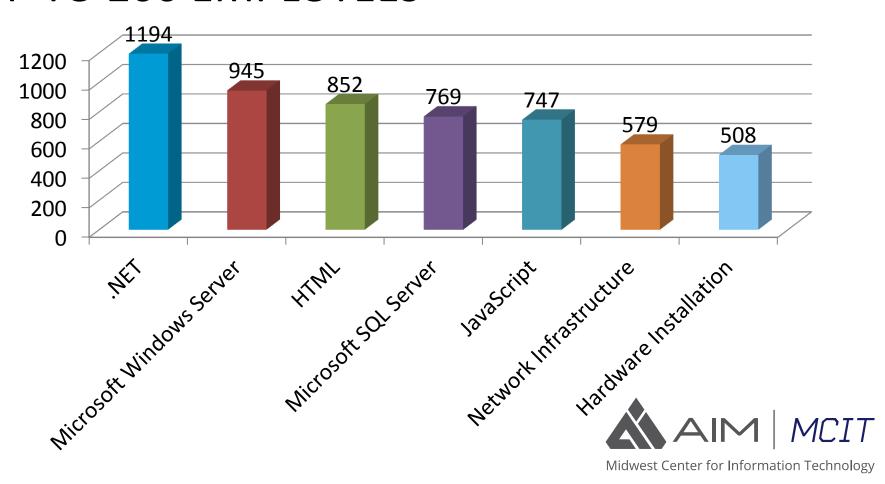
RESEARCH QUESTION #3

How do IT job skills vary by company size?



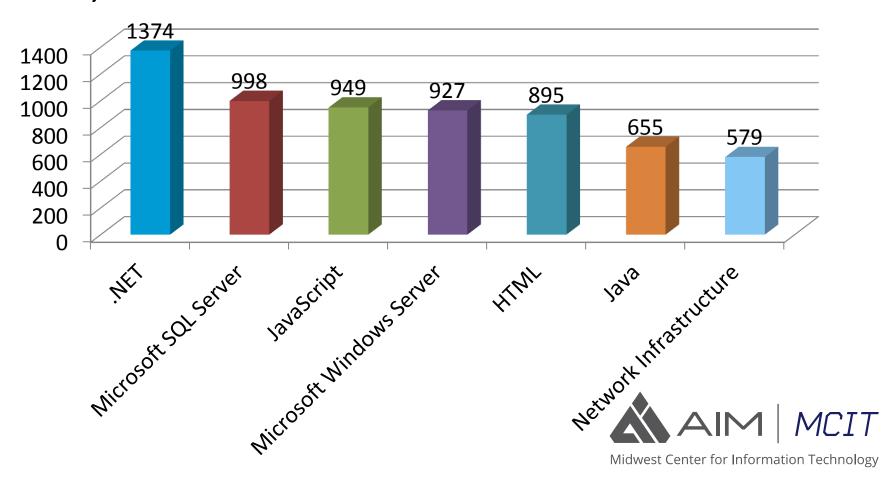


TOP IT JOB SKILLS BY COMPANY SIZE: UP TO 200 EMPLOYEES



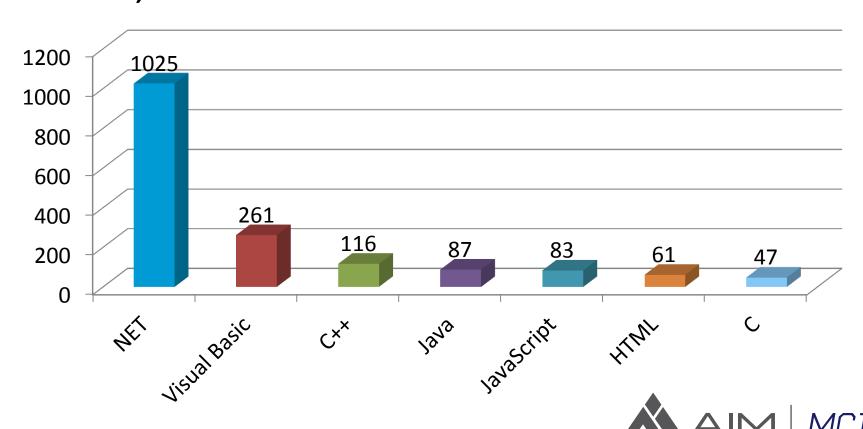


TOP IT JOB SKILLS BY COMPANY SIZE: 200-2,000 EMPLOYEES





TOP IT JOB SKILLS BY COMPANY SIZE: OVER 2,000 EMPLOYEES



Midwest Center for Information Technology



RESEARCH QUESTION #4

How do the Careerlink top IT job skills compare to national IT job trends?





COMPARISONS TO NATIONAL DATA

Top IT Skill Priorities

- Network / Infrastructure
- Server / Data Center Management
- Storage / Data Backup
- Cybersecurity
- Source: CompTIA's "State of the IT Skills Gap" (2012)





COMPARISONS TO NATIONAL DATA

Top 5 In-Demand Skills for IT Jobs

- Security Infrastructure
- Cloud, SaaS
- Virtualization
- Big Data
- Networking
- Source: TechNewsWorld (2013)





COMPARISONS TO NATIONAL DATA

Top Tech Trends Affecting Job Projections

- Mobile Technology
- Business Analytics
- Cloud Computing
- Social Business
- Source: IBM's "Tech Trends Report" (2012)





NEXT STEPS

- Create customized, on demand reporting for each of the community colleges we serve
- Create a means to track trending skills, so that our schools can prepare ahead of time for the next new thing
- Analyze how this data source differs and complements traditional labor-market information
- Strengthen the alignment of skills and educational opportunities for the public



USING CAREERLINK TO SHOWCASE:

Skills

to

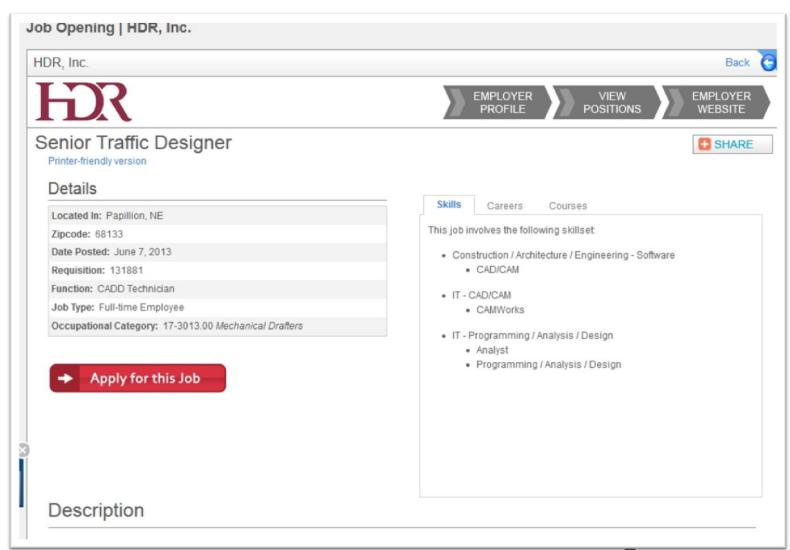
Jobs

To

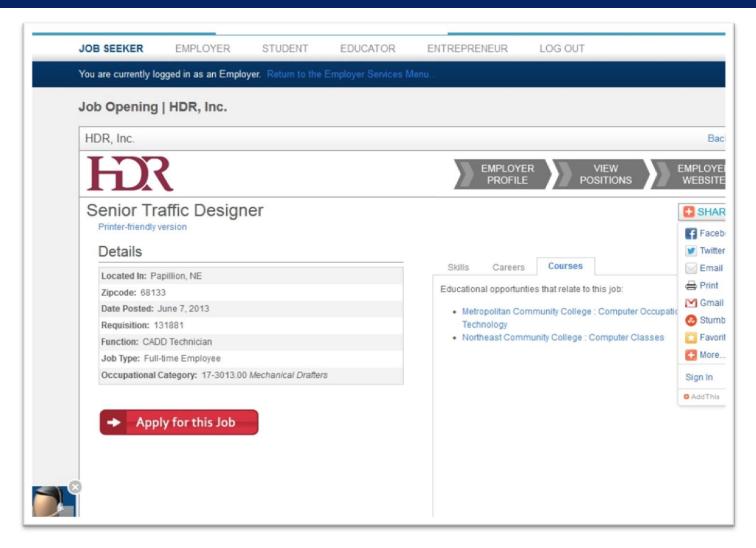
Educational Opportunities















REFERENCES

- CompTIA. (2012). *State of the IT skills gap*. Downers Grove, IL: CompTIA.
- Lo, J.; Wylde, C.; Hupfer, S. (2012). *The 2012 IBM tech trends report.* Armonk, NY: IBM.
- Skinger, S. (2013). "5 In-demand skills for landing a dream IT job." *TechNewsWorld*. Retrieved:
 - www.technewsworld.com/story/77549.com





QUESTIONS?

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