



# Real-time Labor Market Analysis of Growing Demand for Coding Skills

August 15, 2016

# Burning Glass: Our Mission and Services

1. We help **learners and workers** move into and up within their careers
2. We help **academic institutions and learning companies** identify, develop, and articulate the value of programs and content
3. We help **employers** fulfill and plan for their talent needs
4. We deliver high value job market research and **thought leadership**



# We assemble raw data and drive it to practical insight

Our core big data engine aggregates job market data, analyzes job market patterns, and delivers actionable insight



## Drawing conclusions

Our advanced AI engine leverages this common vocabulary to conduct sophisticated pattern analysis, providing granular insight into skills in demand and real-life career transitions.



## Translating to a common language

A proprietary taxonomy allows those across the job market to communicate. Our natural language artificial intelligence translates disparate terminology into a common language of jobs, skills, and qualifications, paving the way for valid comparisons.



## Tagging and structuring

We add a common structure of metadata across all the elements in this data warehouse, covering more than 70 elements to permit in-depth analysis.

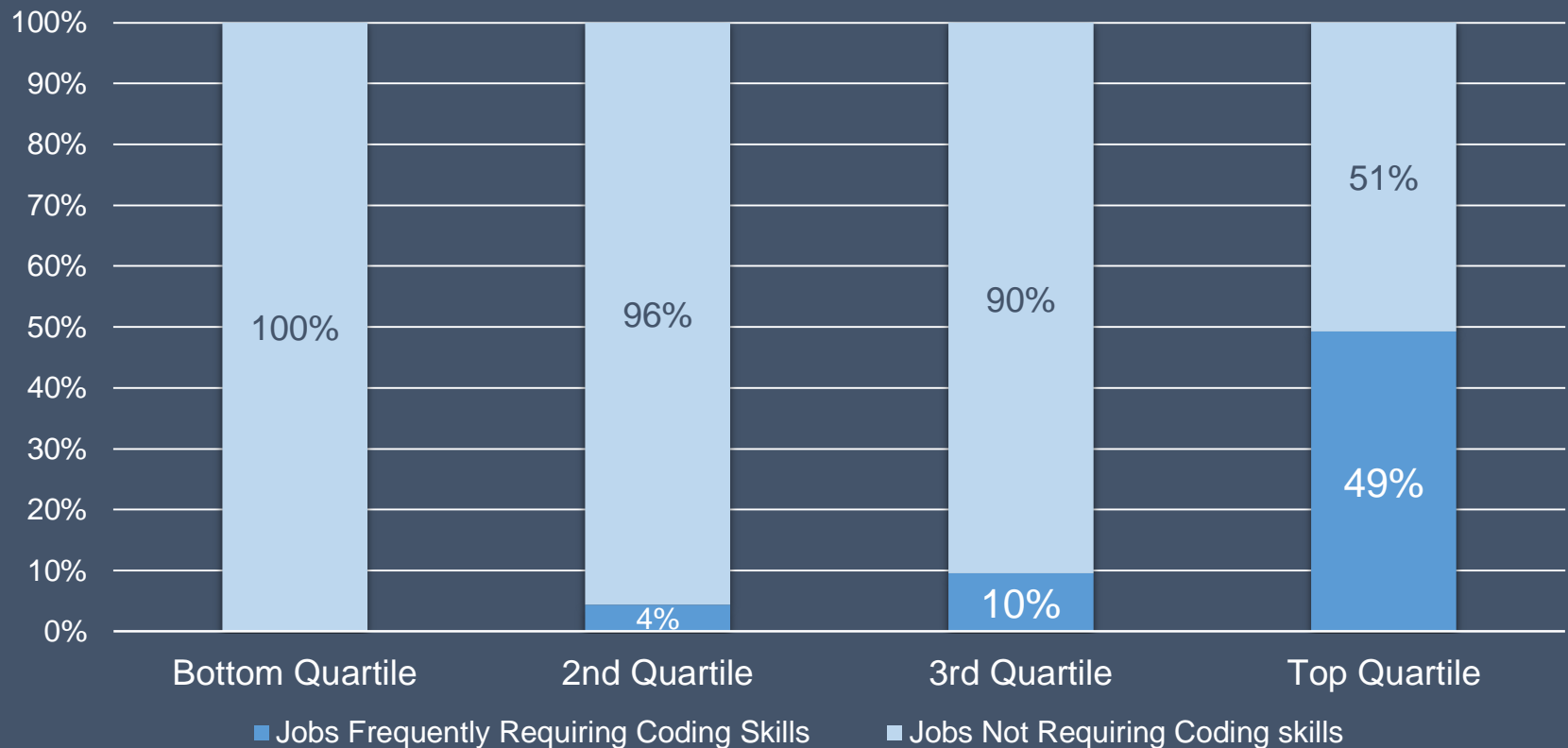


## Capturing job market data

We scan 40,000 sources daily, capturing job postings from job boards, corporate sites, and other sources, along with a vast store of resumes. We track 5.4 million active, unique job openings.

# CODING IS BECOMING THE KEY TO HIGH PAYING CAREERS – NOT JUST IN TECH

## Jobs and Coding Skills by Income Level



# JOBS REQUIRING CODING SKILLS GROWING FASTER THAN OTHER CAREER-TRACK JOBS

**CODING JOBS**  
ARE GROWING  
.....  
**FASTER**



Coding jobs are  
projected to grow  
faster than other jobs  
over the **next 10 years:**



## SCIENCE

Scientists use computer programming to analyze the results of their experiments.



# CODING JOBS ARE AVAILABLE ACROSS ..... MANY CAREERS

## DATA ANALYST

Data analysts use computer programming to analyze data and solve problems in business and finance.



## INFORMATION TECHNOLOGY

IT professionals write software that is used for everything from creating apps to driving cars.



## ENGINEERING

Engineers use programming to design and test new products and conduct research.



## ARTS AND DESIGN

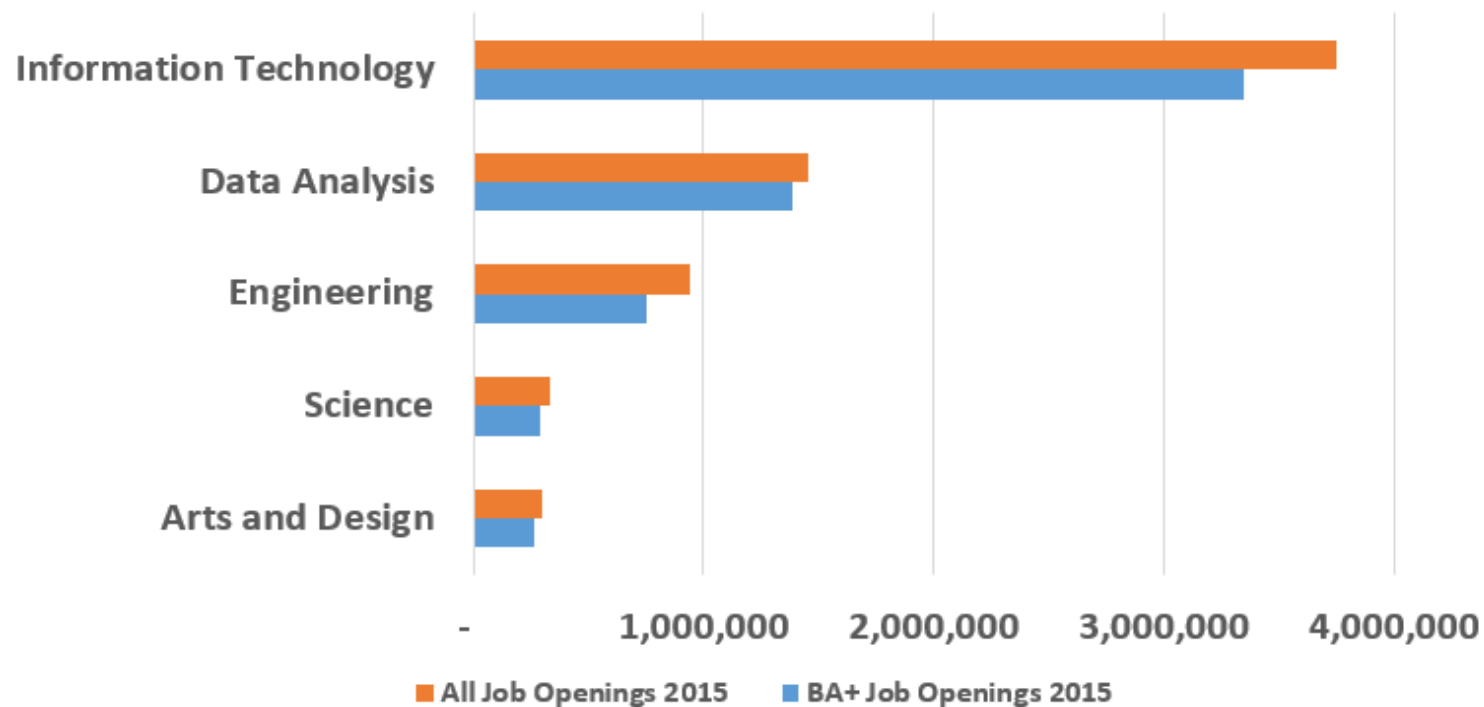
Designers use digital tools to create websites and design the physical products we buy.



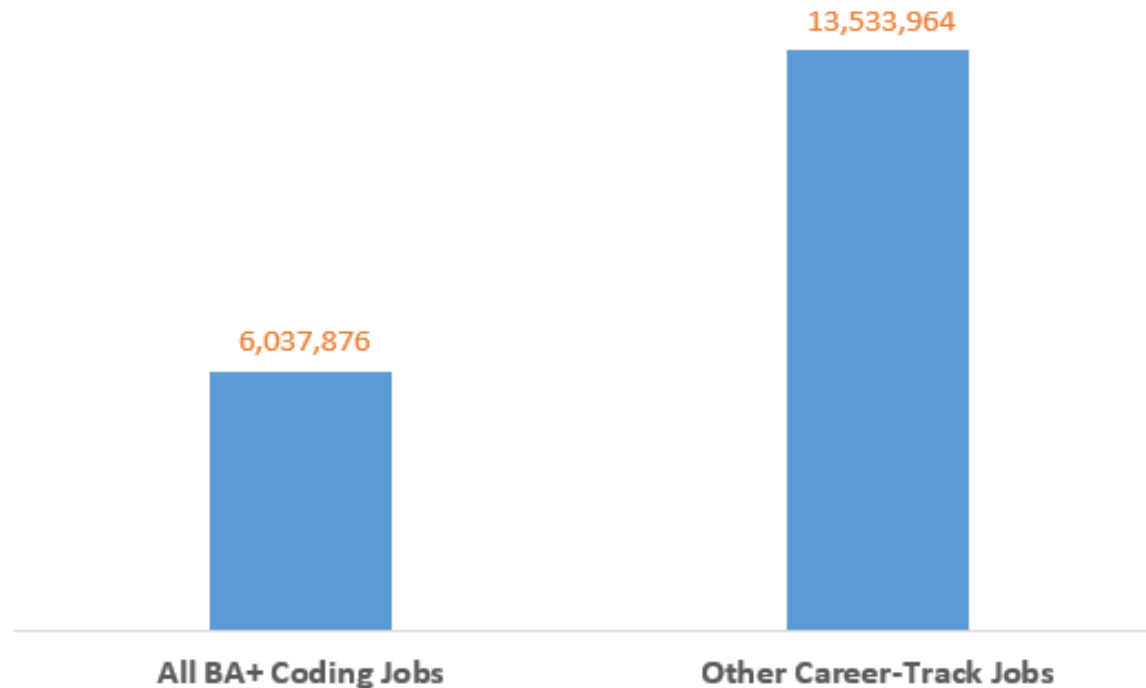
# CODING SKILLS IN DEMAND ACROSS SEVERAL CAREER AREAS



# 45% OF JOBS REQUIRING CODING SKILLS NOT IN TRADITIONAL IT OCCUPATIONS



# 31% OF ALL BA+ JOB OPENINGS IN 2015 REQUIRE CODING SKILLS





# CODING SKILL REQUIREMENTS IN EACH JOB GROUP

## Importance of Programming Skills:

**Very High**

### INFORMATION TECHNOLOGY

#### General Programming Languages

- Java, C++

#### Database & Business Intelligence

- SQL, Oracle

#### Web Development

- Javascript

#### Data Science

- Hadoop, NoSQL, R

**High**

### DATA ANALYSIS

#### Data Management

- Excel including Visual Basic and Macros

#### Database & Business Intelligence

- SQL, Oracle

#### Data Science

- Hadoop, NoSQL, R

### ARTS & DESIGN

#### Design Software

- Photoshop

#### Web Development

- Javascript, HTMLS

**Moderate**

### ENGINEERING

#### Engineering Design

- Computer Aided Design

#### Computer Aided Manufacturing

- Programmable logic Controllers, Computer Numerical Control machines

#### General Programming Languages

- C++, Java

**Low**

### SCIENCE

#### Statistical software

- SAS, R

#### Mathematical Computing

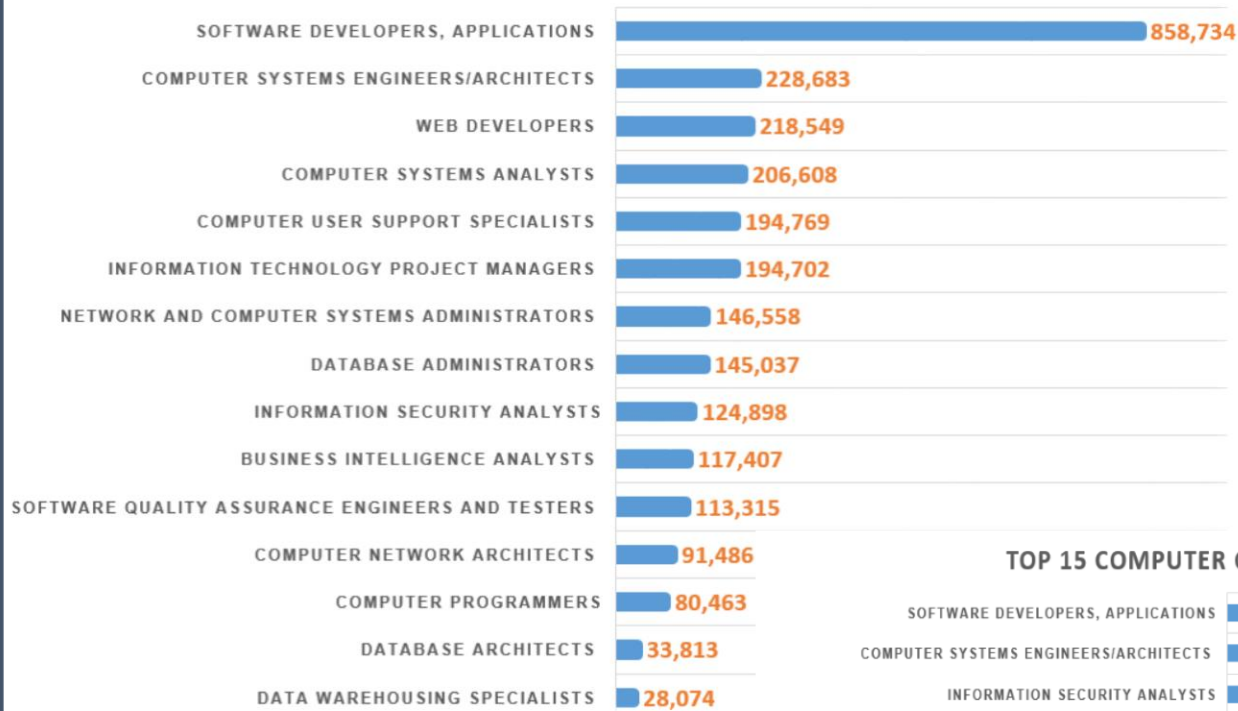
- Python, C++

# TOP OCCUPATION GROUPS IN DEMAND

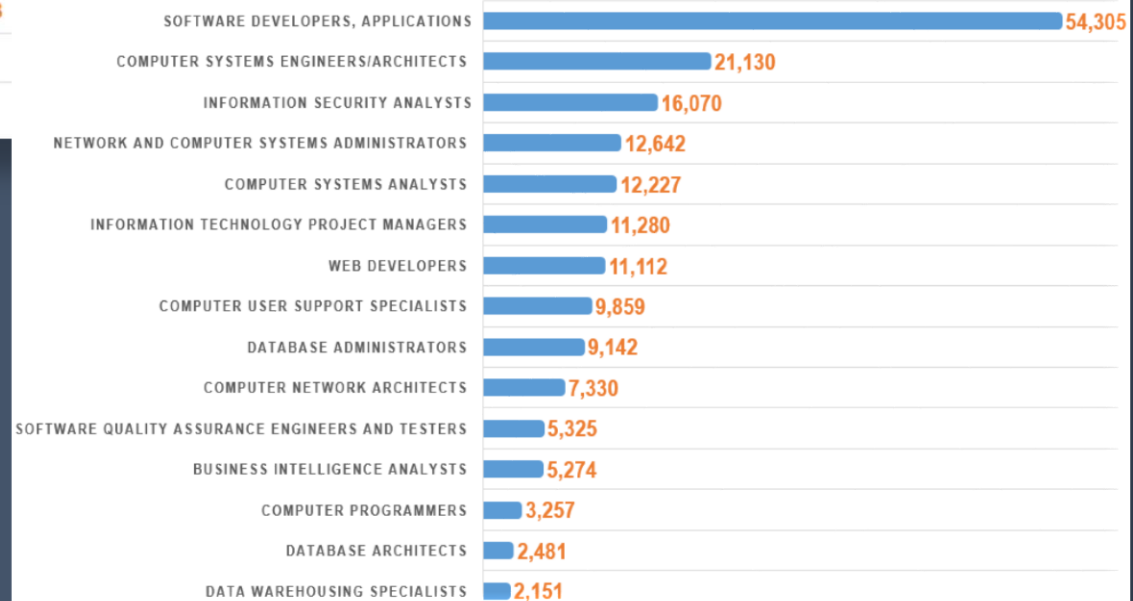
(JOB POSTING COUNTS AUG. 2015 – JULY 2016)



## TOP 15 COMPUTER OCCUPATIONS NATIONALLY



## TOP 15 COMPUTER OCCUPATIONS IN THE DC METRO AREA



**For more information, contact:**

**Susan Goldberger**

Senior Product Advisor

t +1 (617) 694-8872

[sgoldberger@burning-glass.com](mailto:sgoldberger@burning-glass.com)