



CS74.42A Game Dev 1

Fall 2017 ~ Ethan Wilde

Week 1



SANTA ROSA
JUNIOR COLLEGE

Welcome

- Homework + Tests
- Grades
- Meeting Schedule
- Course Outline: 3 Levels
- Textbooks
- Software
- World of Game Development
- Introduction to JavaScript, Part 1

About Me

- Founder of early Web development company, Mediatrope, in 1996
- Created Content Management System software used for museum and cultural organization websites
- Grew up in Cloverdale, graduated Cloverdale H.S. 1985
- Attended UC Santa Cruz and UC Berkeley
- Degrees in Art History and Architecture
- Designed and developed award-winning online and media-based games for children and mass market
- Technology helped shape the path of my life

Homework + Tests

- All homework, quizzes and tests online via Canvas.
- Sixteen (16) Project Assignments
- Two (2) Graded Quizzes
- Midterm (*online like everything else*)
- Final Exam (*online like everything else*)
- **Homework due uploaded to Canvas by 11:59pm PST Mondays**

Grades

- **Grading Policy**

- **0 pts for missed quiz, midterm, or final exam**, unless prior written arrangements made with me.

- **Late Homework**

- **due Mondays 11:59pm PST**
- 10% reduction in max grade per week late
- Emergencies? Let me know

- **Attend + Participate!**

Points

14 x 30	62% 16 Project Assignments
2 x 100	
15 x 8	12% 15 Discussions
2 x 30	6% 2 Quizzes
100	10% 1 Midterm
100	10% 1 Final Exam
1000	1000 points possible (100%)

Grades

Points

Percent

1000 - 900	100% - 90%	A
899 - 800	89% - 80%	B
799 - 700	79% - 70%	C
699 - 600	69% - 60%	D
599 and below	59% and below	F

Meeting Schedule

Maggini 2923
Tuesdays 4pm - 5pm

August 22 - December 12

No meeting on September 19

Course Outline

Week

1	7	13	18
Part 1: JavaScript Programming + Browser-Based Games	Part 2: Unity3D IDE + Multi-Platform Games	Part 3: Designing + Developing Your Own Game	

Our journey maps to three distinct parts, or levels.

Each level is about six weeks in duration.

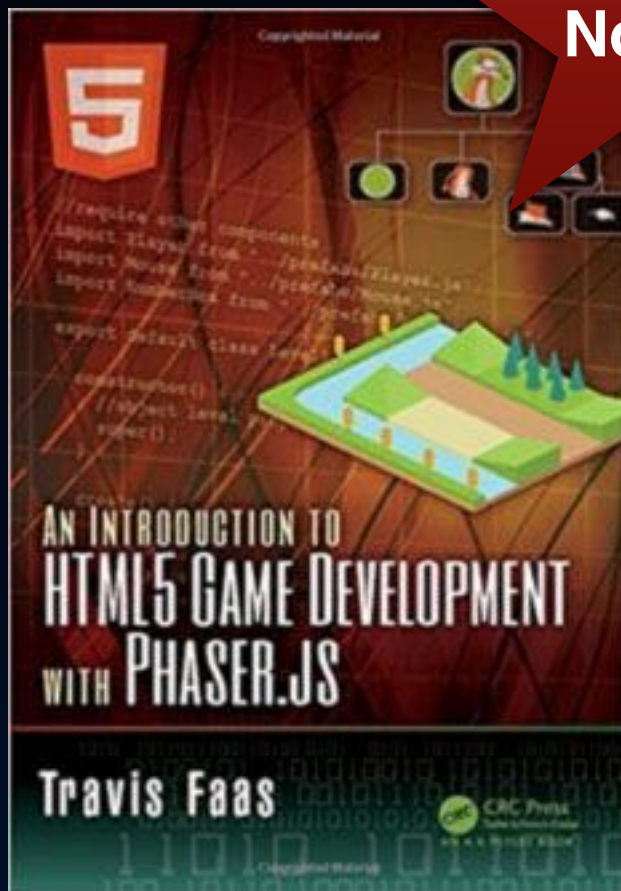
Course Outline

1 World of Game Development / Introduction to JavaScript	10 Modeling and Rigging / Learning Physics
2 Get Started with Browser-Based 2D Games / More JavaScript	11 Advanced Physics and Special Effects
3 Build from a Blueprint: Game Design Document	12 Final Project: Design Your Game
4 Build and Playtest Sprint 1: Midterm Project	13 Build and Playtest Sprint 1: Final Project
5 Build and Playtest Sprint 2: Midterm Project	14 Enhancing UI and Sound
6 Midterm Project Review	15 Build and Playtest Sprint 2: Final Project
7 Introducing Unity: Building Games for Multiple Platforms	16 Finalizing and Optimizing
8 Create a Scene	17 Taking Your Game Further
9 Start Scripting / Midterm Exam	18 Final Exam / Final Project Review Discussion

Get all of the details in the complete syllabus on Canvas.

Textbooks

Now!



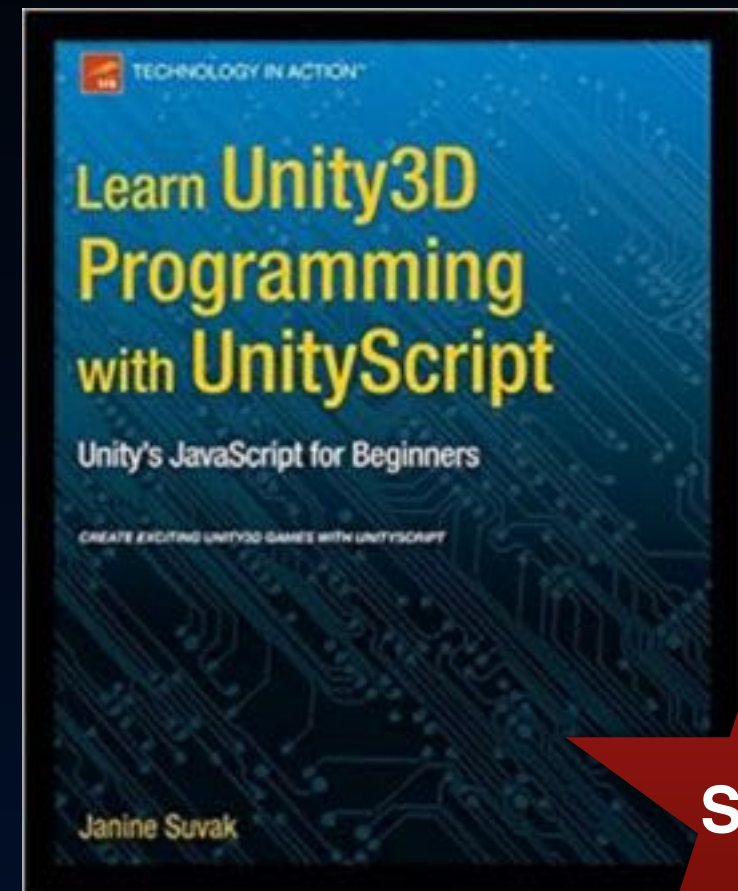
***An Introduction to HTML5
Game Development with
Phaser.js***

Travis Faas

ISBN 978-1-138-92184-9 print

ISBN 978-1-315-31921-6 ebook

Soon



***Learn Unity3D Programming
with UnityScript***

Janine Suva

ISBN 978-1-4302-6586-3 print

ISBN 978-1-4302-6587-0 ebook

Software for Part 1

Text Editor	Cloud9 (Browser-based Mac + Win)	Brackets (Desktop app Mac + Win, free)	Sublime Text (Desktop app Mac + Win)
Web Browsers	Google Chrome (development)	Mozilla Firefox (FireFTP add-on)	Others (browser testing)
File Transfer (SFTP/FTP)	Cloud9 (Browser-based Mac + Win)	Fetch (Desktop app Mac only)	WinSCP (Desktop app Win only)
Graphics Editor	<u>pixlr.com</u> (Browser-based Mac + Win)	Adobe Photoshop (Mac + Win, student cc sub)	Gimp (Desktop app, Mac + Win, free)
PDF Reader	Adobe Reader (free)	Adobe Acrobat Pro (part of cc sub)	Apple Preview (Mac only)

Software for Part 1



<http://phaser.io/>

The World of Game Development

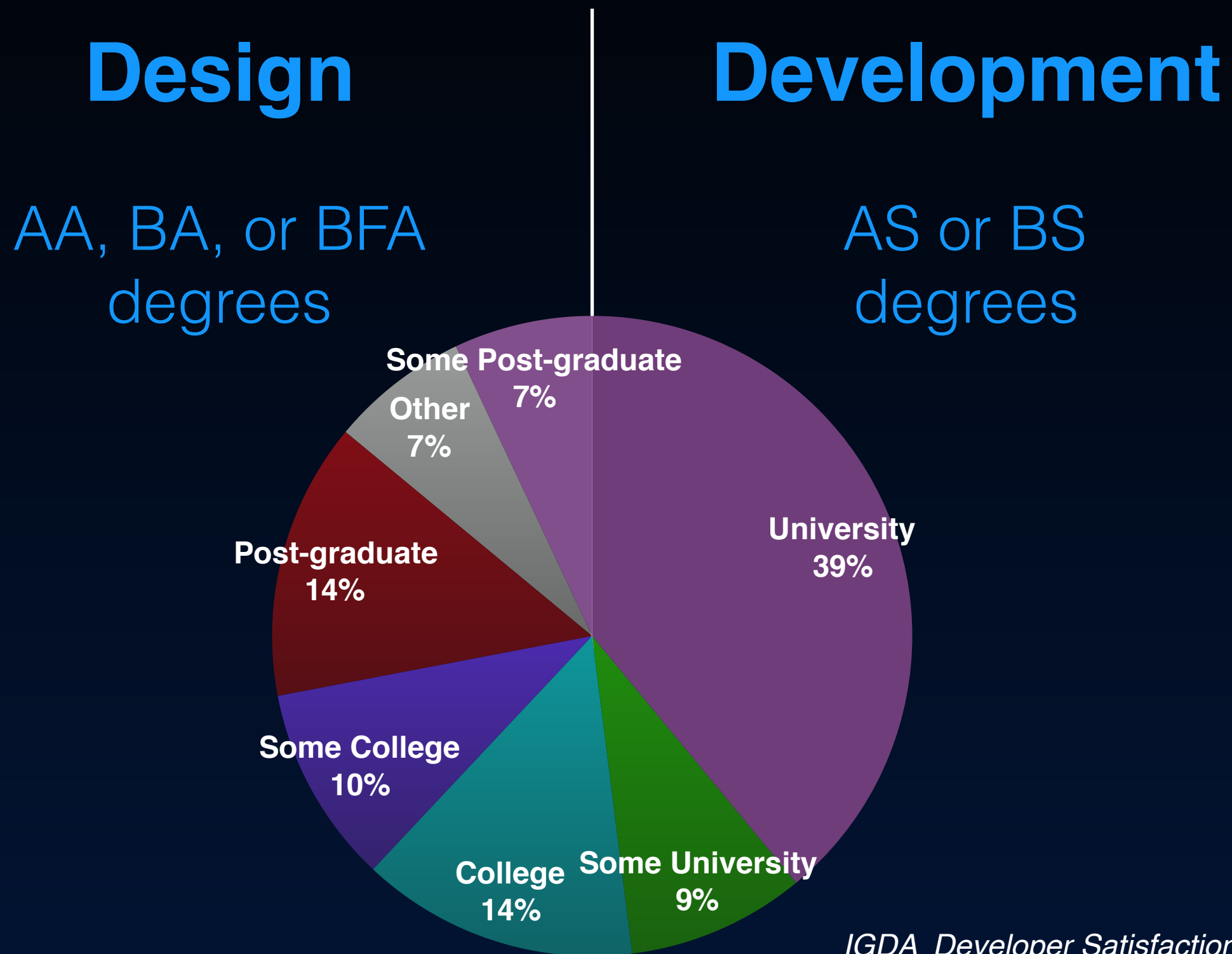
Design

2D background artist
3D animator
3D modeler
art director
character artist
content designer
creative director
effects artist
game designer
texture artist

Development

2D game programmer
animation engineer
audio programmer
content programmer
engine programmer
game programmer
game tester
tools engineer
network programmer
online AI programmer

The World of Game Development



The World of Game Development

California

853 Companies

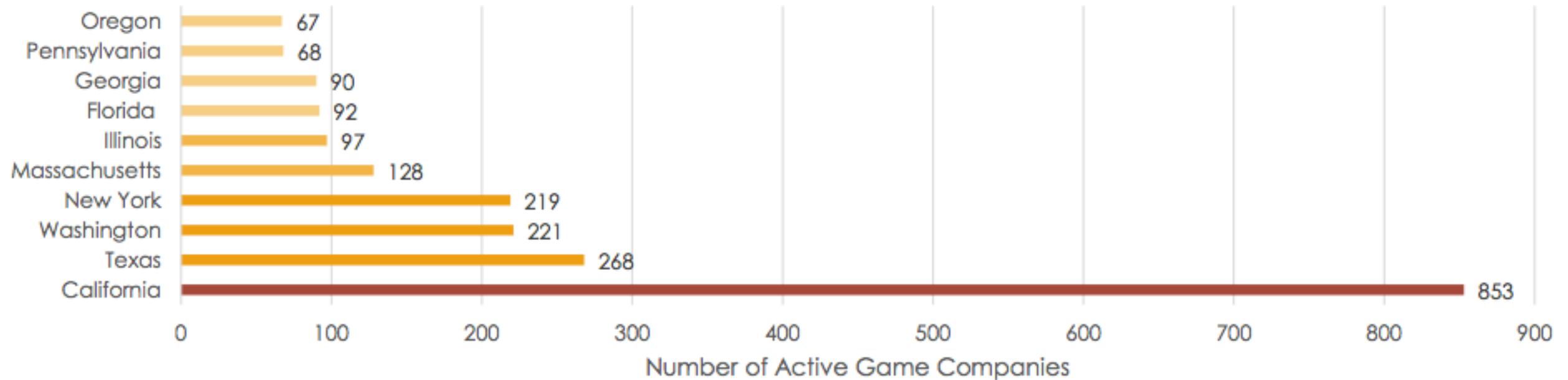
Texas

268 Companies

Washington

221 Companies

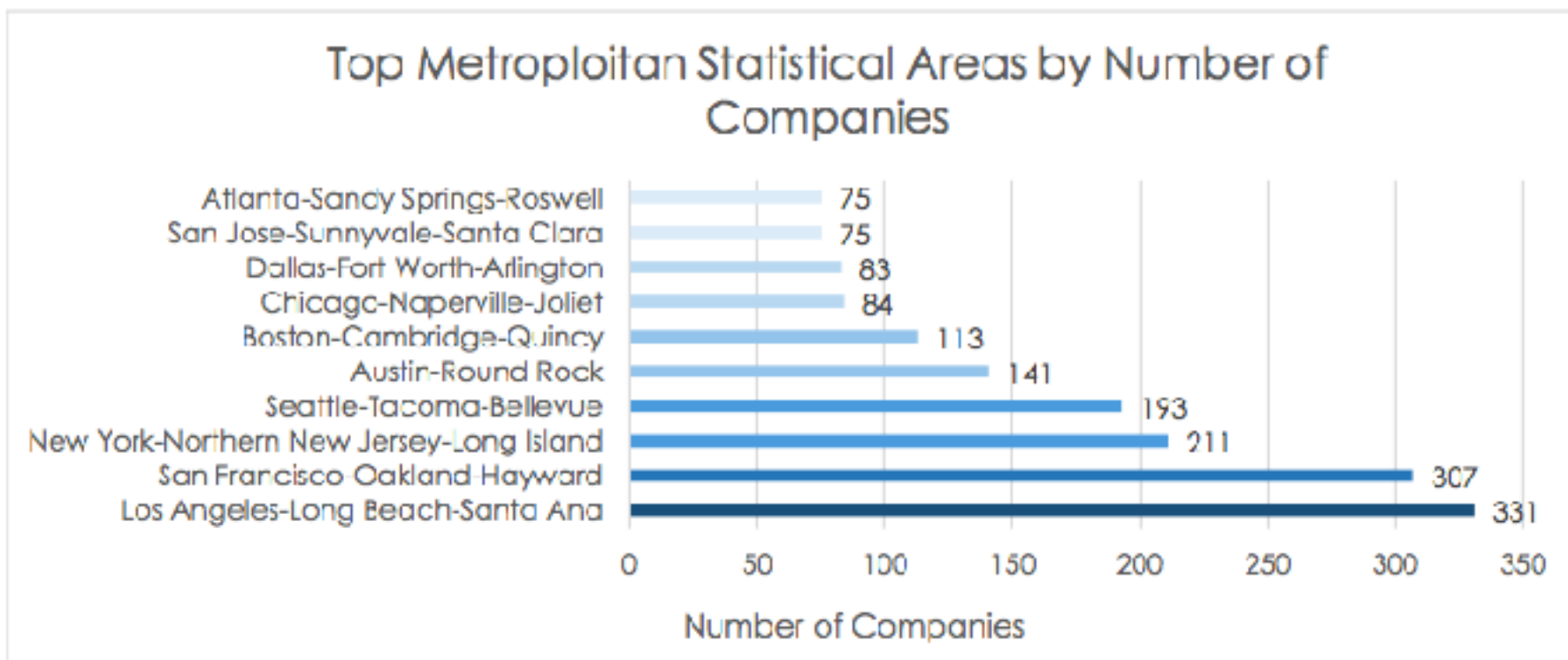
Top States by Number of Companies



The World of Game Development

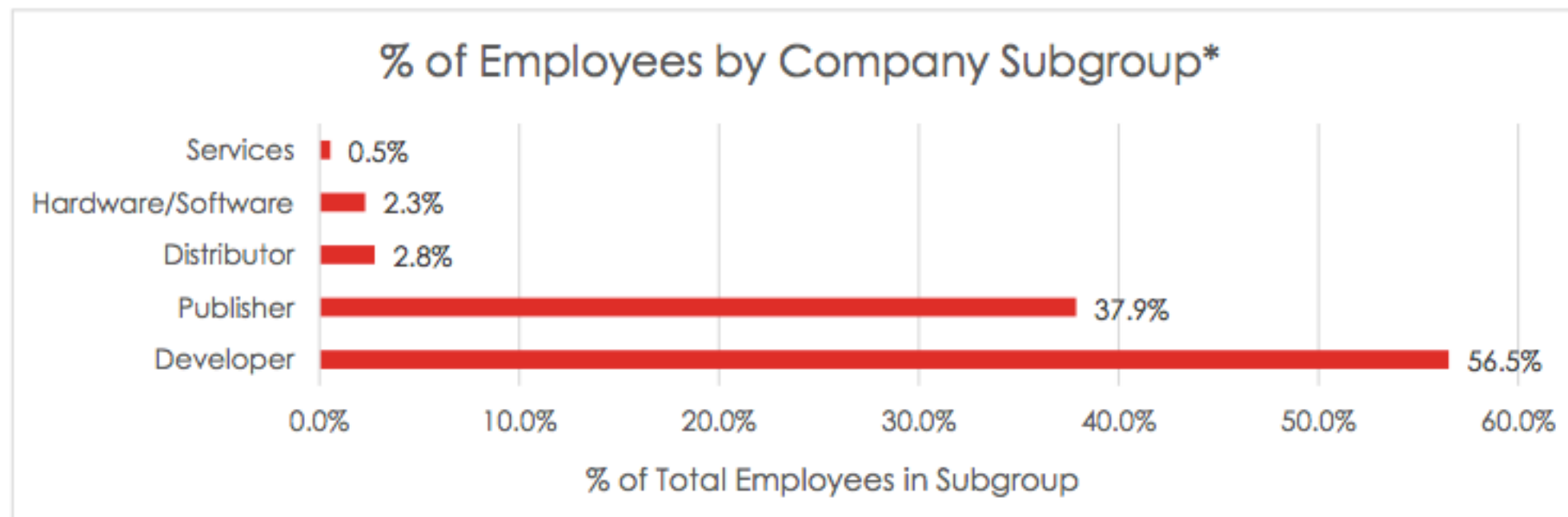
Los Angeles-Long Beach-Santa Ana	San Francisco-Oakland-Hayward	New York-Northern New Jersey-Long Island
331 Companies	307 Companies	211 Companies

The top metropolitan statistical areas (MSAs) by industry volume are led by major cities in California. Los Angeles-Long Beach-Santa Ana has more game companies than any other MSA with 331 companies followed closely by San Francisco-Oakland-Hayward with 307 game companies. Another California MSA, San Jose-Sunnyvale-Santa Clara, is also included in the list with 75 companies. Top MSAs are additionally located in Texas (Austin-Round Rock and Dallas-Fort Worth-Arlington), Washington (Seattle-Tacoma-Bellevue), New York (New York-Northern New Jersey-Long Island), Massachusetts (Boston-Cambridge-Quincy), and Illinois (Chicago-Naperville-Joliet).



Top MSAs include cities in California, Texas, Washington, New York, Massachusetts, and Illinois

The World of Game Development



The American video game industry directly employs an estimated **65,678** people

*Non-Exclusive Developers are not included due to inability to judge the number of employees focused on game industry activities

All game publishers—even those that are considered to be small businesses—employ the most people on a per company basis. Despite only having 220 companies within its subgroup, publishers employ 37.9% of all industry employees. This is due to the prevalence of small companies in the developer subgroup. A developer's average total employment per company is 18 employees while a publisher's average total employment per company is 114 employees.

99.7%

of American video game companies meet the criteria for a **small business**

91.4%

of American video game companies **employ 30 people or less**

The World of Game Development

California

35,325 Employees

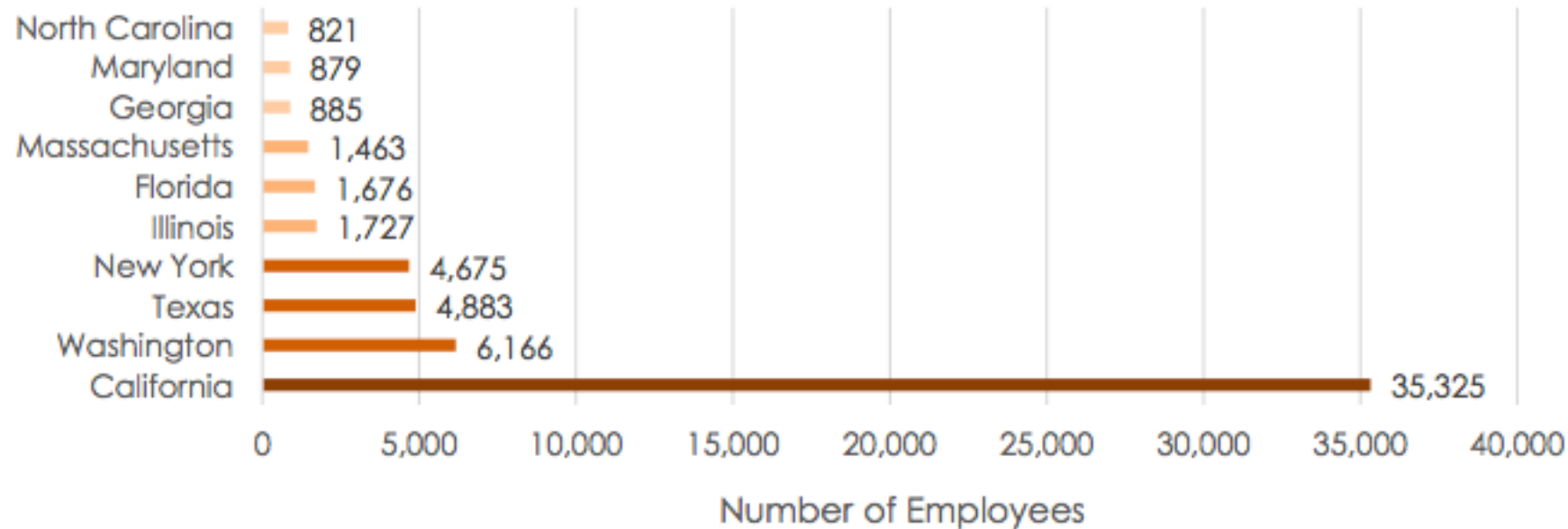
Washington

6,166 Employees

Texas

4,883 Employees

Top States by Employment Count



53.78% of industry
employees are located
in California

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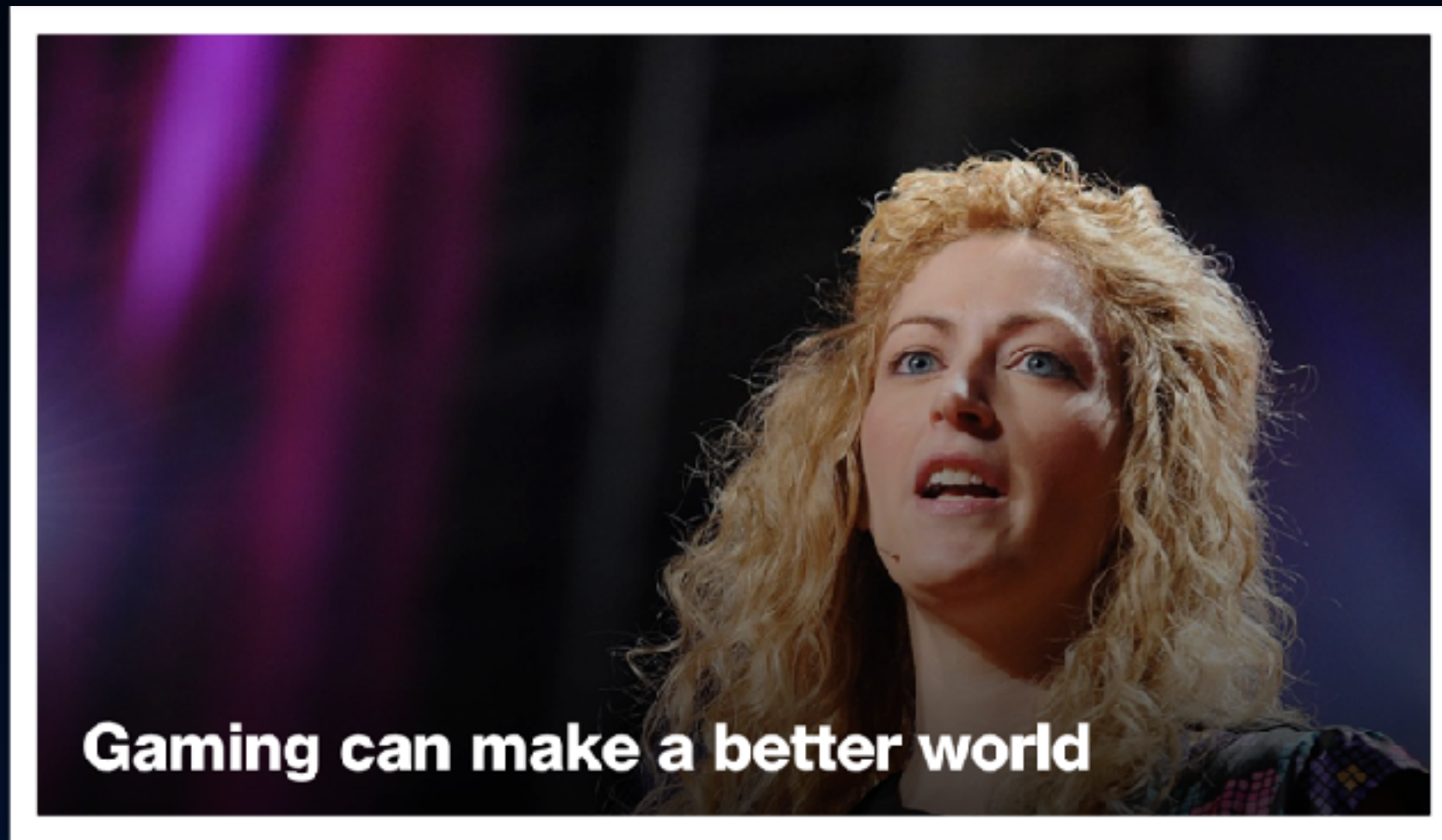
Play Games



<https://archive.org/details/internetarcade>

The World of Game Development

Think About Games: *Jane McGonigal*



[https://www.ted.com/talks/
jane_mcgonigal_gaming_can_make_a_better_world](https://www.ted.com/talks/jane_mcgonigal_gaming_can_make_a_better_world)

Introduction to JavaScript, Part 1

“JavaScript is the language of the browser and of the people – it is the most widely known programming language in our history.”

— *Me*

JavaScript Everywhere

**JavaScript is found in many software products
besides web browsers.**

www.jseverywhere.org

JavaScript Basics

**“Demo Time
with *JavaScript for Cats*”**

— *Me*

In Canvas Module 1
<http://srjc.ethan.com/js4cats/>

What to Do Next



Play
Games

- **Required Reading**

- *JavaScript for Cats* online tutorial: <http://srjc.ethan.com/js4cats/>
- *An Introduction to HTML5 Game Development with Phaser.js*, Chapter 1

- **Optional Reading**

- Eloquent JavaScript free eBook: <http://eloquentjavascript.net/>
 - *Chapter 1: Values, Types, and Operators*
 - *Chapter 2: Program Structure*

- **Homework**

- **Assignment 1: Syllabus + JavaScript Quiz**
- **Discussion 1: Check-in Discussion:**
watch Ms. McGonigal's TED Talk and post an introduction
- **Student Cloud9 Account Survey:**
complete survey with your preferred email address
- Homework due **uploaded** to Canvas by **11:59pm Monday 8/28**

- **Canvas Site:** class videos, article links and lecture materials available

- <https://canvas.santarosa.edu/courses/25555>