

MICHIGAN STATE

UNIVERSITY

Beta Presentation

Visualizing Dynamic Data Exploration

The Capstone Experience

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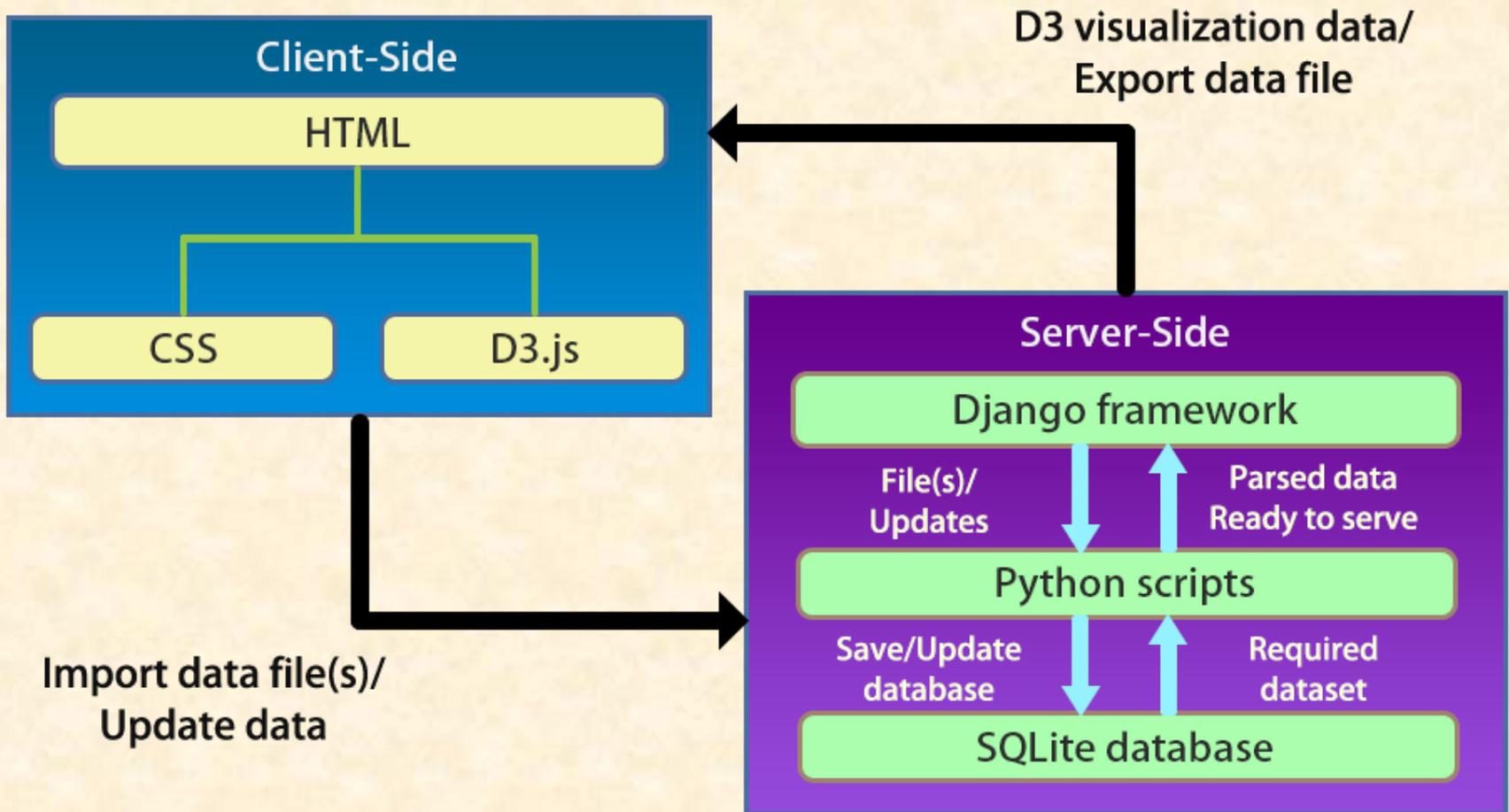
*From Students...
...to Professionals*

Project Overview

- Make vast amounts of complex data easy to understand in a visual manner
- Make the application's canvas the focal point of use
- Available and unobtrusive toolbars



System Architecture



Filtering

Filter Data

Select which columns you would like to include in the data-visual.

GPA Year Major GraduationDate School

Back

Filter Data

Order the headers by which data will display. First header will be the base, second will be derived from first, third derived from second, etc.

Year Major GPA

Next

Filter Data

Apply any extra filters here.

Select **ONE** additional filter. (Optional)

I want to find values in...

First Last School Major Minor Year GPA GraduationDate PhoneNum Email

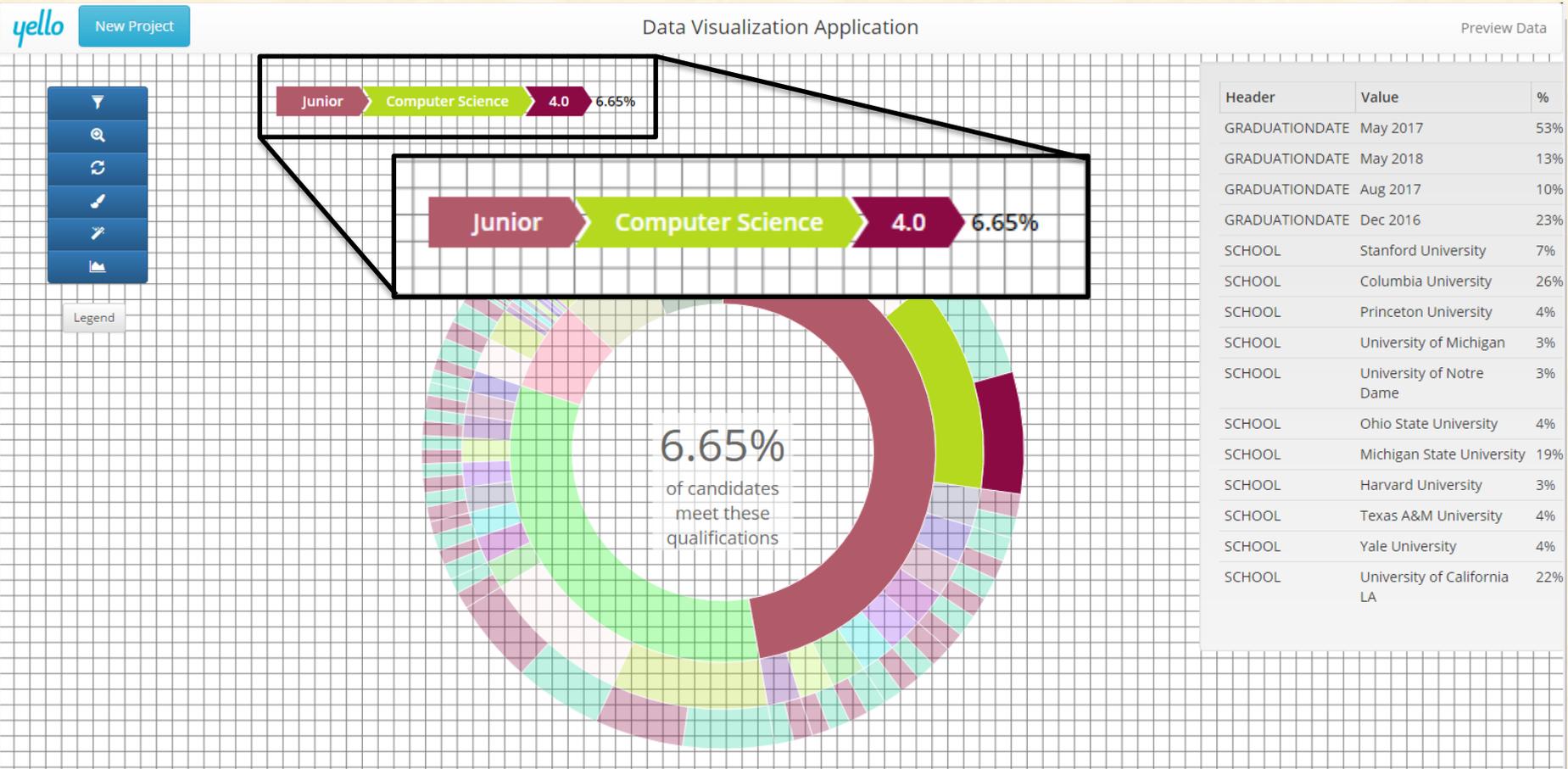
...that are Equal To Not Equal To Options ▾

Back Apply Filters

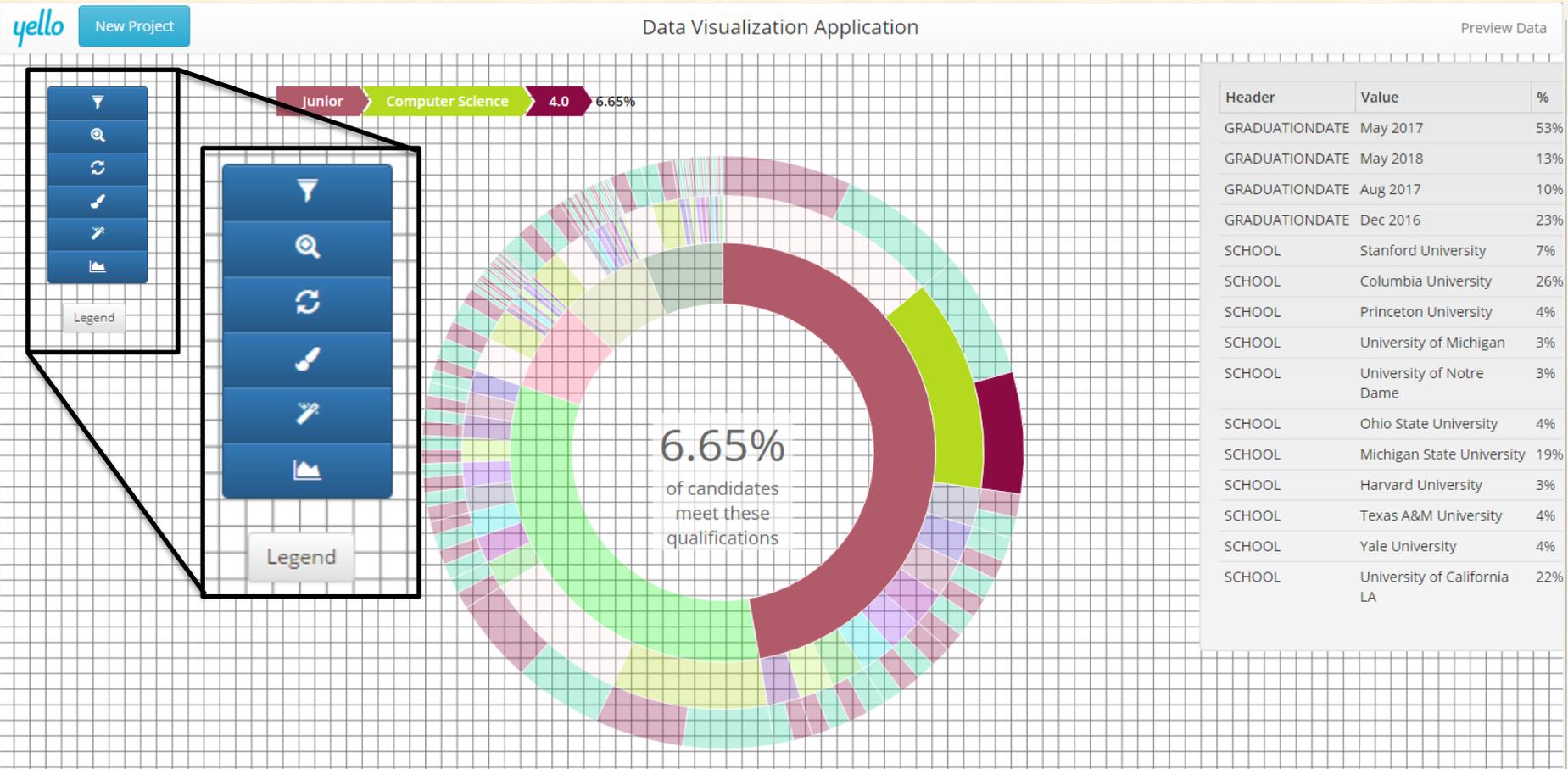
- Biochemistry and Molecular Biology
- Communication
- Computer Science
- Accounting



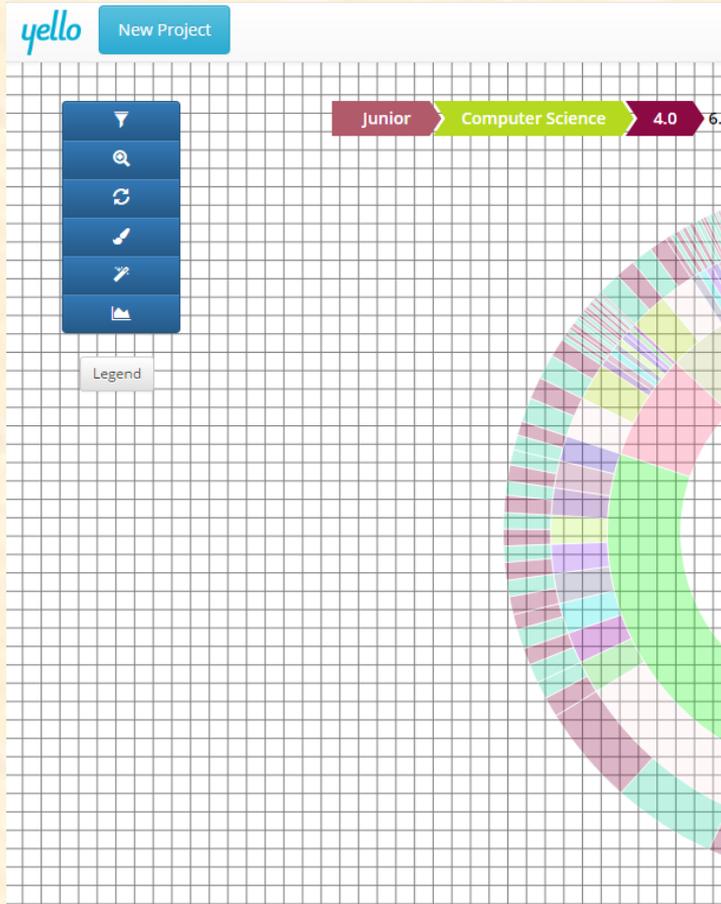
Canvas Area



Toolbar



Additional Data Text Box



Header	Value	%
GRADUATIONDATE	May 2017	53%
GRADUATIONDATE	May 2018	13%
GRADUATIONDATE	Aug 2017	10%
GRADUATIONDATE	Dec 2016	23%
SCHOOL	Stanford University	7%
SCHOOL	Columbia University	26%
SCHOOL	Princeton University	4%
SCHOOL	University of Michigan	3%
SCHOOL	University of Notre Dame	3%
SCHOOL	Ohio State University	4%
SCHOOL	Michigan State University	19%
SCHOOL	Harvard University	3%
SCHOOL	Texas A&M University	4%
SCHOOL	Yale University	4%
SCHOOL	University of California LA	22%

Preview Data

Header	Value	%
GRADUATIONDATE	May 2017	53%
GRADUATIONDATE	May 2018	13%
GRADUATIONDATE	Aug 2017	10%
GRADUATIONDATE	Dec 2016	23%
SCHOOL	Stanford University	7%
SCHOOL	Columbia University	26%
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SCHOOL	Ohio State University	4%
SCHOOL	Michigan State University	19%
SCHOOL	Harvard University	3%
SCHOOL	Texas A&M University	4%
SCHOOL	Yale University	4%
SCHOOL	University of California LA	22%

Preview Data

The screenshot shows a web application interface with a 'Preview Data' dialog box open. The dialog displays a table with the following data:

MAJOR	MINOR	SCHOOL	YEAR	GPA	GRADUATIONDATE
Astrophysics		University of Notre Dame	Junior	1.0	May 2017
Criminal Justice		University of California LA	Senior	1.0	Aug 2017
Applied Engineering		University of Michigan	Junior	4.0	May 2017

The background application shows a 'Legend' on the left and a 'Preview Data' button circled in red on the right. The main data table in the background has the following structure:

Header	Value	%
GRADUATIONDATE	May 2017	53%
ONDATE	May 2018	13%
ONDATE	Aug 2017	10%
ONDATE	Dec 2016	23%
	Stanford University	7%
	Columbia University	26%
	Princeton University	4%
	University of Michigan	3%
	University of Notre Dame	3%
	Ohio State University	4%
	Michigan State University	19%
	Harvard University	3%
	Texas A&M University	4%
	Yale University	4%
	University of California LA	22%



What's left to do?

- UI enhancements
- Continued user testing
- Debugging



Questions?

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