

# Ruimin Gao

Data Visualization engineer

I am a passionate and devoted Data Visualization Engineer, proficient in both web development and UI/UX design. My specialization is building UI, web application and creating data visualization.

## Experience

### 2017.05 - 2017.08 Data Visualization Engineer - Intern

Autodesk, San Francisco, CA

**Customer Success Visualization** <https://va.tech.purdue.edu/ravengao/customerVis.pdf>

- Created Proof-of-concept visualization system prototype for Customer Success Metrics, conducted user research with metric owners and potential user group. Built prototype with Sketch and Highcharts.
- Worked as front-end developer, coordinating with data engineers and designers to build both UI components and visualization for enterprise visualization dashboard. Visualization developed with Highcharts. Version control with Git.
- Familiar with Agile Scrum model.

HTML5/CSS/JS Highcharts Sketch

### 2015.08 - 2017.05 Research Assistant

DataVis Lab, Purdue University, IN

**Career Mapping** [https://va.tech.purdue.edu/lilly/career\\_mapping.php](https://va.tech.purdue.edu/lilly/career_mapping.php)

- Built an interactive web system: multi-Dimensional flow data mining and visualization. This project is sponsored by Eli Lilly Inc. and is cooperating with local education departments for college/career planning.
- The system is now in beta test for higher division curriculum of local high schools, and have more than 1k users (high school counselors and students).
- Dataset has 50 tables and 100k+ entries across versions. Version control with Git.

HTML5/CSS/JS D3.js PHP MySQL

**Discriminate Patterns** <https://github.com/ravengao/Discriminate-Patterns>

- Built a web visualization application: analyze patterns and network in a large-scale dataset. This project is provided by Medicine company Eli Lilly Inc.. The goal is to increase the probability of active compound in random trials.
- Worked on visualizing association rules in medical compound mining. The dataset contains more than **3 million** data entries. Improved algorithm of pattern processing. Calculating speed was increased by 70% in average.

HTML5/CSS/JS D3.js Echarts Python Flask Pandas React

### 2014.04 - 2015.05 Student Researcher

Tianjin University, China

**Crime Case Analysis** <https://web.ics.purdue.edu/~gao338/VASTChallenge2014.html>

- IEEE VIS 2014 - Award: Honorable Mention for Effective Use of Coordinated visualization.
- Presented the project in a global conference as student speaker.
- Analyzed textual data, social network, and structural evolution. Use Python to develop Text summarization, filtering and searching algorithms to process 2k documents data.

HTML5/CSS/JS D3.js Highcharts Python

## Education

### 2015.08 - 2018.02 MS, Computer Graphics Technology

Purdue University, IN

GPA: 3.9

Specialization: Data visualization and web development

Thesis: Visualizing patterns and networks in large-scale compound dataset

### 2011.08 - 2015.06 BS, Software Engineering

Tianjin University, China

GPA: 3.6

## Personal info

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### Portfolio (+projects)

<https://va.tech.purdue.edu/ravengao/>

## Skills

HTML5	<div style="width: 90%;"></div>
CSS	<div style="width: 85%;"></div>
JS	<div style="width: 80%;"></div>
Python	<div style="width: 75%;"></div>
D3	<div style="width: 70%;"></div>
React	<div style="width: 65%;"></div>
SQL	<div style="width: 60%;"></div>
Sketch	<div style="width: 55%;"></div>

Proficient in **Javascript**, **HTML5**, **CSS**. Familiar with ES6, SASS. 3-year experience of front-end development with data visualization libraries like **D3.js**, **Highcharts**, Echarts,

Familiar with web framework **React**, Redux, Node.js and technologies like RESTful APIs, Ajax. Also have experience with python web Framework **Flask**.

Excellent in **Python** programming, fluent with **Pandas** and scikit-learn. Proven knowledge in basic **data mining** and **machine learning**.

Proven knowledge of relational database and NoSQL database. Familiar with **SQL** based query language and MongoDB.

Solid **UX** skills. Proficient in design and prototype with **Sketch**. Proven knowledge of user research process, usability test and product evaluation.