

# FEI-FEI ZHENG

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## WHO AM I

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I am super passionate about solving problems by science and technology. I am strong self-motivated quick learner and I love to keep things organized. I have my own way of organizing and digesting knowledge and apply it across disciplines. My excellent communication and critical thinking skills help me getting things done collaboratively with others.

Currently I live in Toronto and in my third year of the Computer Science program at York University. My interests in computer science area are in software design and computer vision. Apparently, school is not enough for me, that I am also a frequent visitor to Udemy, Coursera, Lynda, InfoQ to keep my knowledge to up to date. I love coding and data science related meetups in my area. But I am not entirely geeky, since I also build hand crafts and play Chinese classical music instruments in spare time.

## WHAT I KNOW

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- I construct computer vision algorithms with **Python** and **MATLAB**
- I solve coding problems (mostly on leetcode.com) in **JavaScript**, **Python** and **Java**
- I build web apps in **Node JS**, **Express JS**, **RESTful API**, **OAuth2** and **AWS EC2**
- I build mobile apps using **Android Studio** (although I use iPhone)
- I love using **Git** because I hate losing version control of my code changes

## WHAT I AM DOING AND WHAT I DID

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| 2018.5 – Present | <b>Computer Vision Research Assistant, York University CVR</b> <ul style="list-style-type: none"><li>- Participated in Intelligent Systems for Sustainable Urban Mobility (ISSUM) project</li><li>- Evaluated and compared state of art algorithms for specified dataset and purpose via <b>Python</b> and <b>MATLAB</b></li><li>- Assist postdoctoral fellows in research process with programming and Mathematics knowledge and skills</li><li>- Analyzed and tested Auto Camera Calibration with Manhattan Frame Estimation and Unsupervised Crowd Counting</li><li>- Took the initiative to learn the knowledge about computer vision algorithms (Geometric Camera Calibration, Scale Invariant Feature Transform (SIFT), Principle Components Analysis (PCA), etc.)</li></ul> |
| 2015.3 – 2015.9  | <b>Graphic Designer, Solo Media</b> <ul style="list-style-type: none"><li>- Created artwork including magazine and website</li><li>- Communicated with client on design product needs and request</li><li>- Optimized design for user experience</li></ul>   |

## WHAT I DO FOR FUN

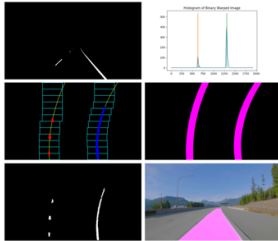
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### Rsme web application



- Built a web application that auto generates resume in PDF.
- It gets user profile information with given binding permission from LinkedIn via **LinkedIn RESTful API** and **OAuth2**
- It gets code contribution chart from **GitHub** with given username
- The project is written in **Node.js** and **Express.js**
- The project uses various of Node.js libraries, include **request**, **PDFKit**, **xpath**, **xmldom**, **mustache-express**, etc.
- <https://github.com/sophiiae/rsme>

### Lane Detection



- Built an algorithm that recognizes lane marks from image and video without camera calibration
- It includes image color analysis, filtering, perspective transform and sliding windows
- The dataset is chosen randomly without camera specification.
- The project is written in **Python**
- The project uses Python libraries include **Matplotlib**, **OpenCV** and **Numpy**
- <https://github.com/sophiiae/AdvancedLaneDetection>

## WHAT I LEARNED

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2016 - Present      **BSc. Honors Maj/Min, Computer Science & Mathematics, York University**

*Mobile Computing, Software Design, Computer Vision (for applications)*

*Calculus, Linear Algebra, Probability, Statistics, Machine Learning and Pattern Recognition (for machine learning)*

*Data Structure, Algorithm, Object Oriented Programming (for coding)*

2017.6 – 2017.8      **Machine Learning**, by Andrew Ng, **Stanford University (via Coursera)**

*Grade: 95.3%*

2014 – 2016      **Graphic Design, Seneca College**

*Photography, Poster Design, Magazine Design, Website design and coding,*

*Color Theory, Design Thinking, Typography, Logo and Branding Design,*

*Interactive Design*