

# Langxuan (Ryan) Su

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## EDUCATION

### CARNEGIE MELLON UNIV

B.S. IN MATHEMATICAL SCIENCES

B.S. IN COMPUTER SCIENCE

MINOR IN STATISTICS

MINOR IN MACHINE LEARNING

Expected May 2018 | Pittsburgh, PA

Cum. GPA: 3.74

Science and Humanities Scholars

Dean's List High Honors

### AFF HIGH SCHOOL OF SCNU

Grad. May 2014 | Guangzhou, China

## LINKS

Github:// [law-liet](#)

LinkedIn:// [langxuansu](#)

## COURSEWORK

### GRADUATE

Machine Learning (10-701)

Graduate Analysis (21-651, 21-720)

### UNDERGRADUATE

Real Analysis (21-269\*, 21-355, 21-356)

Linear Algebra (21-242\*, 21-341)

Abstract Algebra (21-373)

Probability/Statistics (21-325, 36-326\*)

Discrete Math (21-127, 21-484)

Functional Programming (15-150)

Theoretical Computer Science (15-251)

Algorithms (15-210)

Intro to Computer Systems (15-213)

Data Analysis/Science (15-388, 36-401)

Game Theory (80-405)

(\* Honors Course)

## EXPERIENCE

### RESEARCH ASST & COAUTHOR | CMU DEPT. COMPUTER SCIENCE

May 2016 – July 2016 | Pittsburgh, PA

- With Prof. **Seth Goldstein** & Prof. **Mark Kamlet** on the Future of Work project.
- Reviewed papers, and applied regression (linear, LASSO) analysis & machine learning methods (random forest, PCA), to support a component model of jobs.
- Refactored the pipeline of scripts and file structure for data analysis process.

### PEER TUTOR | CMU ACADEMIC DEVELOPMENT

Mar 2016 – Present | Pittsburgh, PA

- Tutor of **Real Analysis I** (21-355) & **Theoretical Computer Science** (15-251).
- Hold weekly standing tutoring appointment. 1st 300+ math & 15-251 Tutor.

### TECH COMMITTEE | CMU CHINESE STUDENT ASSOCIATION

May 2015 – Present | Pittsburgh, PA

- Full stack developer of **CMU CSA** official website with Django & Bootstrap.
- Provide technical support for various campus events: built a live display voting platform for CMU Best Voice and the official page of CMU SUMMIT.

## PROJECTS

### MACHINE COMPREHENSION | DEVELOPER & REPORT WRITER

Mar 2016 – May 2016 | 10-701 Course Project

Worked with Chuan Liu to design and implement machine learning algorithms, with lexical information retrieval, using Python NLTK, for open-domain machine text comprehension, on Microsoft **MCTest** dataset. Achieved an accuracy of 60%.

### LANGXUANS.COM | FULL STACK DEVELOPER

Oct 2015 – Present | Independent Project

My personal websites built with back-end Haskell Scotty, Clay, and front-end Elm, a Functional Reactive Programming Language for web front-end development.

### UNIRW | AUTHOR, DESIGNER & DEVELOPER

June 2016 – Present | Independent Project

A universal reader & writer for stateful data file processing, with basic map & reduce functionality. Inspired by refactoring read-write code. Published in **PyPI**. With documentation, tests and examples. Used in Future of Work project.

## SKILLS

### PROGRAMMING

Over 3000 lines:

Javascript • SML • Python •  $\LaTeX$

Over 1000 lines:

C • Haskell • CSS • PHP

Familiar:

MATLAB • R • Mathematica

Framework:

Django • MEAN • React • CodeIgniter

## AWARDS

2015 6-th/44

2011 Regional Top 2

2011 Regional Top 10

15-150 MiniMax/AlphaBeta Estimator Tournament

China National Mathematics Olympiad

China National Applied Physics Olympiad

## INTERESTS

Mystery

Go

Rubik's Cube

CHN Calligraphy

Read and write mystery stories as a hobby since middle school.

An improving 7k (estimated) player.

Personal record: solved in <30 seconds.

National 2nd Class of a middle school contest in 2010.