

# Mark Cui Pan

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## EDUCATION

### UW-MADISON

#### BS IN MOLECULAR BIOLOGY

May 2015 | Madison, WI

Cert. in Chinese Professional Comm.

Dean's List (four semesters)

### WAUSAU WEST

#### HIGH SCHOOL DIPLOMA

May 2011 | Wausau, WI

Valedictorian

National AP Scholar

## LINKS

Github:// [factcondenser](#)

LinkedIn:// [markcuipan](#)

## COURSEWORK

### SELF-STUDY

HarvardX Intro to Computer Science

Michael Hartl's Ruby on Rails Tutorial

Sandi Metz's Practical OO Design in Ruby

Paulo Perrotta's Metaprogramming Ruby

### UNDERGRADUATE

Data Structures and Algorithms

Computer Engineering

Artificial Intelligence

## SKILLS

### PROGRAMMING

Most comfortable with:

Ruby • Rails • JavaScript

React • RSpec • Capybara

Jest • Cypress • CSS3 • Git

Working knowledge of:

Node • Python • Java

Webpack • PostgreSQL

Bash • Docker • AWS

Have dabbled in:

Swift • Android •  $\text{\LaTeX}$

GraphQL • Angular • C

### LANGUAGES

Fluent

English • Cantonese

Competent:

Mandarin • Spanish

## EXPERIENCE

### WISCONSIN ENERGY INSTITUTE | FULL-STACK DEVELOPER

Feb 2018 – Present | Madison, WI

- I design custom domain models and user interfaces as part of an **Agile** dev team to assist 500+ researchers and administrators with a wide variety of workflows.
- I wrote **rake tasks** to import mission-critical Excel data for reporting to the U.S. Department of Energy, the institute's primary funding source.
- I audited our **Rspec + Capybara** test suite, making fixes to align it with industry best practices, which reduced its single-process runtime by over 30%.
- I wrote an import script that parses output from analytical instrumentation software into **Ruby** objects; I visualized this data with **D3**.
- I built dynamic nested forms and a file tree navigator (the latter backed by a **DAG**-implementation I wrote) using **AJAX** and **jQuery**.
- I implemented file upload functionality with **CarrierWave** and **Minio**, an Amazon S3-compatible API.
- I wrote shell scripts to assist with database management and config file updates.
- I develop against a **Docker** clone of our production **Oracle** database and participate in code reviews on **GitLab**.

### BAOZI TUTORS | CO-FOUNDER

Oct 2017 – Present | Hong Kong

- I built this web-based tutor-matching platform with my co-founder using **Ruby on Rails** and a test-driven, iterative workflow. I'm currently in the process of making the app **PWA-compliant** to expand our user base.
- During this time, I also migrated a **WordPress site** I had created to advertise my personal tutoring services to a **page** on my portfolio site. I built the page from scratch using HTML5, CSS3, and JS. I used Bootstrap and media queries to make it responsive and painstakingly took its **PageSpeed Insights** score from 43 to 100/100, learning about asset-optimization, design standards, **CDNs**, and cache-control in the process.

### PGOETSCH SERVICES, LLC | CONTRACTOR

Winter 2017 | Wausau, WI

- I wrote code to send **SMS messages** to members of the core **JPW Industries** dev team were parts of their import script to fail.
- I built the website for **Vilas & Company** using **Jekyll** and **Amazon S3**.

### OPTIMIZE YOUR GROW | CONTRACTOR

Fall 2017 | Oakland, CA

- I resolved an issue with my client's **Angular** app in which requests were timing out because his server was busy solving an optimization problem.

## RESEARCH

### UW-MADISON DEPT. OF PSYCH. | UNDERGRADUATE RESEARCHER

Jan 2014 – Aug 2014 | Madison, WI

- I assisted **Stacey Kigar** and **Prof. Tony Auger** with data collection and analysis to study epigenetic mechanisms in the central nervous system of rats.
- I wrote a **Python script** to perform calculations and expedite cDNA synthesis.