

# 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](#)

Twitter:// [markcuipan](#)

## COURSEWORK

### SELF-STUDY

Paulo Perrotta's Metaprogramming Ruby

Sandi Metz's Practical OO Design in Ruby

Michael Hartl's Ruby on Rails Tutorial

### 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:

Go • Python • Java • Node

SQL • Docker • AWS • Bash

Have dabbled in:

Elixir • GraphQL •  $\LaTeX$

Android • Flutter • Rust

### LANGUAGES

Fluent

English • Cantonese

Competent:

Mandarin • Spanish

## EXPERIENCE

### DOXIMITY | SOFTWARE ENGINEER

Aug 2019 – Present | Austin, TX

- I work remotely with the social updates team, maintaining and extending applications responsible for sending out 300K+ user notifications per month.
- I used a hashset to improve an algorithm for reaggregating notifications, which decreased that endpoint's memory allocations by over 90%.
- I built a pipeline for disseminating 1K+ peer recommendations per month on top of **Sidekiq**, **Redis**, and **Kafka**.
- I wrote a backfill task to safely and efficiently search and update 180M+ records in our production database.
- I used batching, caching, and indexes to optimize a daily-run archive job, which reduced its execution time by 98%.
- I engage in regular design discussions with my peers, mapping requirements to tools and their tradeoffs.
- I use **Docker** containers for local development, **GitHub** for code reviews, and **Pivotal Tracker** for issue tracking.

### WISCONSIN ENERGY INSTITUTE | SOFTWARE ENGINEER

Feb 2018 – Jul 2019 | Madison, WI

- I worked on a **Rails** API/**React** UI microservice for visualizing respirometry data. I used Jest and Cypress for frontend testing.
- I built dynamic nested forms and a file tree navigator using **AJAX** and **jQuery**.
- I audited our **Rspec** + **Capybara** test suite, making fixes to align it with industry best practices, which reduced its single-process runtime by over 20%.
- I wrote shell scripts to assist with database management and config file updates, making context switches faster and less error-prone for our entire team.

### PGOETSCH SERVICES, LLC | CONTRACTOR

Dec 2017 - Feb 2018 | Madison, 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

Oct 2017 - Nov 2017 | Madison, WI

- 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.

## COMMUNITY INVOLVEMENT

### OPEN AUSTIN | CONTRIBUTOR

I contribute to projects that aim to improve the quality of life of Austin's residents.

### DEV TOGETHER | MENTOR

I mentored new developers at pair programming events around Madison.

### MAD-RAILERS | PRESENTER

I gave a technical talk on **metaprogramming** and a non-technical one on **job-hunting**.