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:
Node • Python • Java • Bash
PostgreSQL • Docker • AWS
Have dabbled in:
Elixir • GraphQL • LaTeX
Android • Flutter • Rust

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.
- My current project is a **Rails** API/**React** UI microservice for visualizing respirometry data. I use Jest and Cypress for frontend testing.
- 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 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 **rake tasks** to import mission-critical Excel data for reporting to the U.S. Department of Energy, the institute's primary funding source.
- 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.
- I develop against a **Docker** clone of our production **Oracle** database.
- I engage in design discussions with my peers, mapping requirements to tools and their tradeoffs. We use **GitLab** for code reviews and **Jira** for issue tracking.

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.

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.