

Jin Ai Yap

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LANGUAGES & TECHNOLOGIES

Python, Javascript, TypeScript, GraphQL, Kotlin, Java, Ruby, Lisp, Racket, HTML/CSS3/SCSS, PostgreSQL, jQuery, AWS, Flask, Django, SQLAlchemy, Alembic, NumPy, pandas, React, Redux-thunk, XState, MobX, MaterialUI, Jekyll, Pytest, Cypress, Jest, Ruby on Rails, Postgres, SQLServer, Temporal, Docker, Celery, next.js, Terraform

WORK EXPERIENCE

Software Engineer

2020 – Present

Curative: rapidly scaling testing and vaccinations for coronavirus

- Reduced considerable tech debt: refactored the entire API and automated tests to conform to Flask conventions; streamlined bloated apps
- Improved PCR analysis algorithm central to COVID testing functionality
- Developed new lab software functionality handling Alinity PCR tests to handle growing test volumes
- Audited, patched, and tested for security vulnerabilities in our API; built infrastructure to log and monitor testing anomalies with deeper granularity, providing better quality data for the data team to analyze for efficiency
- Rebuilt complex React signup flow to expand services to include COVID vaccinations; designed automated, end-to-end tests for this flow using Cypress
- Built system to generate PDF test result reports and vaccination cards in Python for patient ease and transparency, and to archive copies in S3 for audits
- Rebuilt tool for scanning tests into the lab and recording USPS tracking numbers with XState
- Helped newcomers find their footing as our team grew from 9 to 30+ members: extensively documented codebase, team culture, and standard protocols; advocated for improvements to our onboarding process, and established a culture of total transparency and disclosure

Software Engineer

2019 – 2020

Simple Fractal: tailored RPA solutions

- Led a team spec'ing, developing, and building a full-stack greenfield coaching portal for an international executive search firm
- Built and tested an extensible Python EHR-parsing bot, recouping \$6.2M worth of health insurance payments/copays for national healthcare providers
- Saved healthcare clients \$2M/year with AWS Lambda bots automatically posting insurance payments

Chemistry, Calculus, & SAT Tutor

2017 – 2018

Competitive Edge Tutoring; Tutor Associates

Organic Chemistry Research Assistant

2015

Korea Advanced Institute of Science and Technology

EDUCATION

Yale University (B.A. in Studio Art; GPA 3.82)

2017

Coursework in automata theory, syntax, phonology, synthetic organic chemistry

Polytechnic Institute of NYU

2011

Coursework in linear algebra, differential equations

Ross Mathematics Program

2010

Number theory summer program

Other coursework

- Yale's Discrete Mathematics course
- Sheldon Axler's *Linear Algebra Done Right*
- MITx's "Probability - The Science of Uncertainty and Data"