

# Jake Xia

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## SKILLS

### LANGUAGES

Javascript/Typescript, Python, Swift, C++/C/Java, SQL, HTML/CSS, Bash

### TECHNOLOGIES

- Node.js / Express / Koa
- PostgreSQL / MongoDB / Redis
- Pandas / NumPy / MATLAB
- React / Next.js / Vue
- AWS / Google Cloud Platform
- Xcode / SwiftUI / CoreData / ARKit
- Docker / Kubernetes / Helm

## EDUCATION

University of Waterloo  
Candidate for B.ASc, Mechatronics  
Spring 2023

### RELEVANT COURSES

- Algorithms and Data Structures
- Sensors and Instrumentation
- Computer Structure / Operating Systems
- Numerical Methods
- Automatic Control Systems

## INTERESTS

Robotics, 3D Modelling, Preventing Climate Change, Product Design, Indoor Gardening, Photography, Cooking, Running

## AWARDS

Ontario Volunteer Service Award (2018),  
Young Photographer of the Year Top 5 out  
of 754 photographers (2019)

## EXPERIENCE

### SOFTWARE ENGINEER @ Clearco | May — Aug 2021, Jan — Apr 2020

- Transformed customer onboarding experience resulting in a 15% increase in user acquisition by automating navigation logic, revamping UI, and implementing user analytics in Segment and Amplitude
- Engineered 4 RabbitMQ import processes that collect 300K+ daily transactions for Clearco's core data pipeline via API integrations with authorize.Net, Apple App Store, Google Play, and BigCommerce
- Built 5 database abstractions to replace third party ORM library after finding that it caused memory leaks, database locking, and system outages
- Launched tagging tool to increase visibility on high-risk/volatile businesses, preventing thousands in funding from being issued mistakenly
- Automated the tagging of 252 Covid-affected businesses using a PostgreSQL migration, saving 80+ hours of overhead

### FOUNDER + DEVELOPER @ DineHere | Aug 2020 — Now

- Launched *DineHere.me*, a service for local restaurants to generate online menus to help with ordering and discovery amidst the pandemic. Currently used by 4000+ users and growing
- Reduced loading time 100x as measured via network request time by optimizing MongoDB indexes and intelligent caching, improving the user experience and customer retention

### DATA ENGINEER @ Raven.AI | Aug — Dec 2020

- Implemented 40+ automated customer report generation jobs using Kubernetes, reducing two weeks of manual work each month
- Architected a data commenting system using Elixir and PostgreSQL, enabling insights on customer data captured across the company to be stored, consolidated, and accessible via API

### DEVELOPMENT TEAM LEAD @ Tech+ UW | May — Aug 2021

- Lead an engineering team of 9 to build the MVP of a student mentorship portal; converting high level strategy and designs into specific tasks delegated to frontend and backend teams
- Enforced accessibility rules and standards such as vision impairment considerations and keyboard/screen-reader support

## PROJECTS

### CALORIE JOURNAL   SwiftUI/CoreData

- iOS App built to explore declarative SwiftUI, designed to quickly track caloric intake, ingredients, nutritional information, and quantities of food

### EXPENSE MANAGING FOR WEB + iOS   Firebase/Swift

- Cloud app that allows users to analyze spending habits. Shows tendencies, breakdowns, and insights through an intuitive dashboard