

# Kevin Fan

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## TECHNICAL SKILLS

HTML/SCSS, C++, Java, Python, JavaScript, Typescript, R, MATLAB, Mathematica, React, Redux, NodeJS, Express, SQL, NoSQL, D3, Bootstrap, Jest, React Testing Library, Selenium, Puppeteer, Electron, Docker, Kubernetes, Kafka, Jinja, Flask, AWS, Git, Webpack, Grafana

## PROFESSIONAL EXPERIENCE

### Open Source Labs ([ReKuberate Open Source](#))

Software Engineer

New York, NY

April 2023 – Present

- Collaborated with an Agile team, in a Scrum environment, to build a lightweight, visual representation of Kubernetes clusters to monitor pod health and metrics including uptime, availability, request per second, CPU usage, and memory
- Utilized AnyChart to display real time statistics on Kubernetes nodes visualized through interactive network graphs, allowing users to diagnose any failure points in their cluster immediately through color-coded nodes
- Adapted Grafana to present relevant data curated from Prometheus, embedded directly into the application by scrapping for embed URLs
- Compiled using Electron for users to have a dedicated GUI with cross-platform support
- Deployed through Docker for consistent performance on different environments with version control and CI/CD using Github Actions, all hosted on AWS Elastic Beanstalk and Elastic Compute Cloud
- Implemented frontend testing with Jest, backend with Supertest, and end-to-end with Puppeteer, allowing us to ensure availability in database CRUD functionality with high an increased request volume and consistency in pod status to match expected results
- Written in Typescript to main consistency throughout the code and facilitate clear code communication and ensure static typing to prevent bugs prior to deployment and enforce well-written code

### Houwzer, Inc.

Real Estate Salesperson

Philadelphia, PA

December 2021 – January 2023

- Settled nine transactions during the first year with sales worth over \$4 million, despite increasing interest rates and a housing shortage
- Worked with residential clients to purchase and sell properties by managing expectations, negotiating, understanding market trends, and focusing on details
- Managed client and company information using Copper CRM, Asana, and Google Workspace

### 广州市晶品电子商务有限公司 (Guangzhou Jingpin E-Commerce Co., Ltd.)

Application Developer, OEM Development Team

Guangzhou, China

June 2018 – August 2018

- Debugged and iterated upon prebuilt application in Java using Android Studio to improve user interface and experience
- Developed Zebra, a social media application that allowed users to schedule community events open to either a private group of invited users or to the public, eventually sold to Tencent for \$20 million USD
- Translated applications and documentation from Chinese into English

### Starbucks

Shift Manager

Lansdale, PA

January 2014 – April 2021

### Villanova University Physics Department

Teaching Assistant/Tutor

Villanova, PA

January 2017 – May 2019

## PROJECTS

### SQLizer

[github.com/kfan1/Nothing](https://github.com/kfan1/Nothing)

- A web-based application that allows users to visually interact with SQL databases to generate queries reducing the tedious need to memorize SQL query structure and syntax
- Built responsive and interactive user interface with Redux, allowing for centralized state management with the implementation of a store and Flux architecture. This approach not only ensured consistency across the application but also eliminated the need for prop drilling, streamlining data flow and boosting efficiency
- Modularized using React containers and components for easy maintenance, isolating testing, and a uniform codebase
- Architected Node.js/Express server to handle HTTP based on the middleware design pattern, with routers and controllers to modularize backend requests and handle CRUD functionality
- Authenticated users with Bcrypt applying hashing and salting for industry standard cyber security

### MonDinero

[github.com/Mondinero/MonDinero](https://github.com/Mondinero/MonDinero)

- A simple and visual way to track your expenses and budget, built using React/Redux and automated with CI/CD with GitHub Actions
- Employed D3.js to utilize interactive zoomable sunburst charts for simple data comparison between your budget and expenses
- Hosted PostgreSQL databases on Amazon's Relational Database Service to allow elastic scalability and reliability
- Gathered individual expense and transfer data with Plaid

### Python Blog

[github.com/kfan1/kevin-blog](https://github.com/kfan1/kevin-blog)

- Created a full-stack blog written in Python taking advantage of Flask and Jinja for framework and templating, Werkzeug for password authentication, and SQLAlchemy for data storage

## EDUCATION

### Codesmith

Advanced Residency for Software Engineering

New York, NY

April 2023 – July 2023

### Villanova University

Electrical Engineering

Villanova, PA

September 2019 - December 2020

- **Relevant Coursework:** Fundamentals of Electrical Engineering I & II, Signal Processing, Electronic Materials and Devices, Engineering Electromagnetics, Data Structures, Computational Thinking, Advanced Fourier Transforms

### Eastern University

Applied Mathematics

St. Davids, PA

September 2015 - May 2019

- **Relevant Coursework:** Computer Science I & II, Discrete Mathematics, Number Theory, Differential Equations, Statistics, Math Logic

## CERTIFICATES, ACTIVITIES & INTERESTS

**Licenses and Certificates:** PA Real Estate Salesperson License, PA Association of Realtors, Python Certificate from Udemy

**The Other Type of Languages:** English and Mandarin, Chinese

**Activities:** Volunteering for Bethesda Project, Intramural Basketball, Short Term Missions

**Interests:** Building Computers, Mechanical Keyboards, Snowboarding, Sports, Technology, Reading, Running