

Kevin Fan

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TECHNICAL SKILLS

JavaScript, Typescript, Python, C++, Java, R, MATLAB, Mathematica, HTML/SCSS, 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](#))

New York, NY

Software Engineer

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.

Philadelphia, PA

Real Estate Salesperson

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

Guangzhou Jingpin E-Commerce Co., Ltd.

Guangzhou, China

Application Developer, OEM Development Team

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

Lansdale, PA

Shift Manager

January 2014 – April 2021

Villanova University Physics Department

Villanova, PA

Teaching Assistant/Tutor

January 2017 – May 2019

PROJECTS

SQLizer

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

- 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

- 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

New York, NY

Advanced Residency for Software Engineering

April 2023 – July 2023

Villanova University

Villanova, PA

Electrical Engineering

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

St. Davids, PA

Applied Mathematics

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