Weicheng "Zach" ZOU

Full Stack Developer

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Greater Perth Area

CAREER PROFILE

Inventive full-stack developer with expertise in building scalable websites/applications using various skills like React, JavaScript, PHP, RESTful API, MySQL etc. One year of experience with exposure across eCommerce supply chain sectors and customer relationship management (CRM) platforms excel in identifying business requirements and building technical solutions to drive organisational optimisation and growth. I look forward to an opportunity to create something innovative and see tangible results from the efforts.

PROFESSIONAL EXPERIENCE

Full Stack Developer
CGA Trading Pty Ltd - Greater Sydney Area

Dec 2021 - current

*An eCommerce company, aka inkstation.com.au, sells varieties of office supplies. We have **a team of 12** developing the ERP system, which covers supply chain & inventory management, order dispatch, customer relationship management, human resources allocation, customer service, etc. The system servers **>70 internal users** on a daily basis.*

Dashboard for Order Processing & Validation ***Mar 2022 - Sep 2022***

Project Details: The **project aim** was to provide an overview of day-to-day order processing and an entry point for the details of specific orders when troubleshooting is needed. **As lead developer**, I worked **with five other members** to discuss the business logic and requirements **with stakeholders from three different departments**. I **organised** further discussions on logic & performance optimisation, technical feasibility, and future maintainability and **defined** the final approach & milestones. The **critical challenges** were the technical debts due to the evolution of a company's business over time, the fragmented data distribution, and the irregular & sometimes broken data formats.

Achievements & Takeaways: The new dashboard is **10x faster** than the legacy version, and the average time cost to validate 2,300 orders per day has been **reduced from 3.62s to 0.34s**. The integration of different data sources creates a **centralised overview** that provides access to a complete picture of order processing - giving stakeholders an intuitive way to get **a macro view** of order processing speed & accuracy (timeline) as well as **an entry point** for troubleshooting specific order issues. The project also **normalised the data** and **helped in the analysis** of processing efficiency.

Functionality ***Extension of Customer Profile Management*** ***Jul 2022 - Aug 2022***

Project Details: The **goal** is to **extend** the current ordering system to support:

1. sending emails to mailboxes bound to the recipient's address, in addition to the account username (email), and
2. integrating with phone order system to create smooth workflow and improve user experience.

This project involves customer service and order processing departments, and **additional data structure** is required. I led a series of meetings, **consulting** with end users from both departments. It also includes my supervisor and senior developers discussing operational **data migration options** in different scenarios. This project's **main challenges** were the way of storing additional email addresses for users, UI representation, and how to build required data structures to **ensure scalability and compatibility** with other systems.

Achievements & Takeaways: As the customer information page now serves as the starting point for the telephone order system, the whole **workflow** is **smooth**. The time spent by customer service agents editing user information has been reduced, resulting in **increased efficiency**. The completed user information system and data structure now support **soft deletion** of user address information and storing **additional email entries**. The **note information has been unified** across different order processing steps. Overall, the project increases internal user productivity, **reduces the potential for human error**, and supports additional data structures and functionality. Additional **RESTful API entry points** were created to ensure data exchange between different systems and compatibility with legacy code.

Technologies and Tools Used Across the Projects: PHP, MySQL, React.js with TypeScript, JavaScript, HTML, CSS (incl. Tailwind), RESTful API, Docker, Bash, Nginx, Git, Jira, Confluence, Slack, Parcel, Insomnia, and JetBrains IDEs.

Testing Engineer Intern

Assemble Sports - Greater Sydney Area *Jan 2021 - Apr 2021*

*Assemble Sports develops digital products and connectivity solutions for sports organisations. I was engaged in supporting a project with **a team of other 4 developers** from locally, Europe and Asia. The internship gave me the **concept of designing and developing a white-label product** and the **hands-on experience with testing frameworks & CI/CD pipelines**.*

Test Plan Draft, Implementation, and Integration ***Jan 2021 - Apr 2021***

Project Details: The goal of this project and my duty were to **create an end-to-end test script** for the project with the aim of maintaining a high level of user experience. This test script needs to be **integrated into the CI/CD pipeline**. Detailed introduction to the project structure from the team, **extensive project code reading** and **documentation reading** of the testing framework Nightwatch.js all helped me get started.

Achievements & Takeaways: In the last month of my internship, the test script **was merged into the main branch**. Since then, I have written **test runners** for addressing different scenarios/environments and integrated the **result reports** into the Slack bot notifications. This project mainly **exposed** me to the end-to-end **testing framework Nightwatch.js**, which deepened my use of CSS selectors and gave me an understanding of the framework's general testing syntax. I also integrated it with BrowserStack to test on different clients. Throughout the project, I learned more about the web page's rendering sequence of elements and how different page states will bring different actions. It also allowed me to play around with async/await methods in a commercial environment to understand better. **Most importantly**, it gave me a taste of the **Australian working environment** and how to **get along with colleagues and communicate effectively**.

Technologies and Tools Used: Nightwatch.js, BrowserStack, Jest, Node.js (Express), Vue.js with TypeScript, JavaScript, HTML, CSS, MongoDB, CI/CD (Buildkite), Bash, Git, Jira, Slack, Postman and JetBrains IDEs.

SKILLS / TOOLS

PROFICIENT WITH	INTERMEDIATE WITH	EXPOSURE TO
Vanilla JavaScript, PHP, MySQL, HTML, CSS (incl. Tailwind), Bash, RESTful API build, Git, Linux env, Scrum & Agile Development, Jira, Confluence, Slack, Postman/Insomnia, JetBrains IDEs	React.js, Node.js, TypeScript, Nightwatch.js, Perl, Parcel, esbuild, Webpack, Docker (incl. compose), Python (esp. Flask)	Jest, Express.js, Vue.js, Jenkins, GCP, CI/CD pipeline, BrowserStack, MongoDB, PostgreSQL

EDUCATION / DEVELOPMENT

ACS Professional Year Program & BSB40215 Certificate IV in Business

Navitas Professional *Jun 2021 -Jun 2022*

Master of Information Technology, Database Systems

University of New South Wales (UNSW) *Feb 2019 -Jan 2021*

Bachelor of Engineering, Software Engineering

Nanjing University of Science and Technology Zijin College *Sep 2014 - Jun 2018*

PERSONAL PROJECTS / INTERESTS

Home Internet Building ***Jul 2018 - current***

Lots of trial and error, back and forth. The project currently consists of MikroTik hEX S with Proscend 180-T as the SFP Modem, one UniFi PoE switch, two UniFi APs and one Raspberry Pi. The connection is LBNCo through VDSL2. The Internet equipped with a static IP is properly configured with firewall & IPv6, and three VLANs to separate host, guest and IoT devices. Raspberry Pi hosts a bunch of services including UniFi Controller, Samba, Pi-hole and cloudflared to achieve DoH. The services run on local network are equipped with proper static IP https certificate. Used to have one garage PC hosting L2TP tunnel and Radius server for WPA Enterprise access authentication. Home Internet IPv4 PTR is set to minimise the email bounce rate towards Google Workspace (see next).

Personal Domain, Site & Services Hosting ***Jun 2017 - current***

The domain is nono.fi. The nameserver is hosted by Google Cloud (aka. 8.8.8.8) and mail exchange server is also hosted by it (thus Google Workspace). The domain is DNSSEC enabled; MX related SPF, DKIM & DMARC records are configured properly. The domain itself is added to HSTS preload list and the Nginx https configuration is reported as A+ from Qualys SSL Labs. Google Workspace has been configured to solely receive SMTP from my home printer with the home firewall permits only SMTP requests from the printer to make sure no abuse from inside. The VPS that hosts the site runs Nginx to proxy outside services including Ghost Blog, Telegram MTProto proxy, an L2TP tunnel and a few on-demand crawlers, such as checking the stock level of my cat's favourite can food, then send the result to my self-hosted Telegram bot.

Technologies & Tools Used and Keywords: Node.js (Express), Nginx, Python, RouterOS, VLAN, firewall, East-Asia Peering, UniFi Products, DNS settings, HTTPS certificate, self-hosting services, interest in modern web services, **a person with curiosity and who would love to try**.

REFEREE

Available upon request