Scott Cheung

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Summary

Highly skilled and results-driven **Front-End Developer** with over **two years** of development experience and **seven years** in design. Proven expertise in crafting engaging user experiences and enhancing user interaction using technologies such as **HTML**, **CSS**, **JavaScript**, **TypeScript**, **Next.js**, **React**, **Redux**, **Tailwind**, and **Framer Motion**. Committed to continuous learning and excellence in project delivery, with strong skills in **performance** and **SEO optimization**. Known for being **open-minded**, **friendly**, and **kind**, fostering a positive and inclusive team environment. Holds a Master's degree in IT with a focus on Front-End development and AI from **UNSW**. Possesses a **five-year visa**, eliminating the need for sponsorship. Discover more at https://xianzhe.site.

Highlights

3	17	58	59	23	42
Degrees ↗	scholarships ↗	Certificates ↗	Skills	Applications	HD courses

Skill

FrontEnd HTML | CSS | JavaScript | TypeScript | Next.js | Node.js | React | Redux | Tailwind | Framer | Photoshop | GraphQL | Webpack | RESTful APIs | SEO Optimization | Performance Optimization | UI/UX design | CSS libs | Animation libs

Backend NodeJS | XML | JSON | Postman | RESTful API | Redis | Docker | Kubernetes | GraphQL | AWS | CI/CD

Database MySQL | PostgreSQL | Tableau | SQLite | PowerBI | Python | Neo4j | Pandas

AI-Algorithm Machine Learning | Deep Learning | Natural Language | Recommender System

IT-Tool Github | SSH | Docker | Zsh | Vim | Docker | Jira | Agile/Scrum | Jenkins | Kubernetes | Postman | Vagrant

Education

UNSW Sep 2022 - May 2024
Master of IT ↗
Artificial Intelligence

SWUST Sep 2021 - May 2022
Bachelor of Management ↗
Administration Management

SWUST Sep 2017 - May 2022
Bachelor of Engineer ↗
Functional Material

Work Experience

Gobell Group | Front-end Development Engineer Link↗

Feb 2024 - Now

Descerіption: **A comprehensive membership management system for Gobell, providing functionalities such as managing members, orders, products, processing payments, deposits, and validating vouchers.**

Skill: **HTML | CSS | TypeScript | React | Next.js | Tailwind | Framer Motion | Redux | i18n | Figma | AWS Cloud | jsBarcode | QR Code**

Contribution:

- **Client-Side UI Design and Development :**
  Individually design the client-side UI for the Gobell membership system, creating an intuitive and visually appealing user interface. Leveraged React and Next.js to build reusable, modular components, reducing development time by 30%. Implemented responsive design principles using Tailwind CSS to ensure compatibility across different devices and screen sizes. Collaborated with the design team to translate high-fidelity Figma mockups into pixel-perfect code, maintaining high alignment with design specifications and achieving a user satisfaction score of 95% in usability tests.

- **Front-end Architecture and Component Development :**
  Architected and developed the front-end for the first phase of the Gobell membership system using TypeScript, React, and Next.js. Designed and implemented over 50 custom components, adhering to SOLID principles and best practices in front-end development to ensure maintainability, scalability, and testability. Integrated Redux for efficient state management, reducing redundant code by 40% and enhancing data flow predictability. Conducted thorough code reviews and refactored code to reduce technical debt by 25%.

- **Performance Optimization and Code Quality Assurance :**
  Optimized application performance by identifying and eliminating bottlenecks, such as reducing bundle size by 35% through dynamic imports, lazy loading, and code splitting in Next.js. Leveraged React Profiler and Lighthouse to analyze component performance, resulting in a 50% improvement in load times and a 30% increase in runtime efficiency. Established a comprehensive testing suite using Jest and React Testing Library, achieving over 90% code coverage and reducing production bugs by 70%. Implemented CI/CD pipelines for automated testing, linting, and deployment, decreasing manual QA time by 60%.

- **Membership Card Design and Integration :**
  Designed three types of membership cards with a focus on user experience and branding consistency, leading to a 20% increase in user retention. Developed a seamless integration process for membership card issuance and management, ensuring compatibility with the system's card management functionalities and real-time synchronization with backend services, reducing operational delays by 30%.

- **Hardware Procurement and Integration :**
  Led the procurement and integration of essential hardware components, including 5 barcode scanners, 3 card readers, and 2 receipt printers. Developed a robust integration layer to ensure smooth communication between the front-end system and hardware devices, providing users with a reliable and efficient experience for card scanning and printing, which decreased transaction processing time by 40%.

- **Promotional Materials Design :**
  Designed promotional flyers, brochures, and pull-up banners using Figma and Photoshop to enhance the brand's visual identity and support marketing campaigns. These efforts led to a 30% increase in customer engagement during promotional events.

Projects

Neo4j iGrapher (Graphical data code-zero analysis tool) Link↗ Web Development

Feb 2024 - May 2024

Descerіption: **A web tool for code-zero analysis and graphical representation of complex data relationships using Neo4j, React, and D3.js.**

Skill: **HTML | CSS | Neo4j | JavaScript | React | D3 | Tailwind | Framer Motion | Google Chrome DevTools | Figma | Tencent Cloud | Docker**

Contribution:

- **UI/UX Design :**

Individually designed and implemented 3 complex interfaces, 5 medium interfaces and over 20 interaction logics, using Figma and Photoshop to enhance design, ensuring intuitive and smooth user experiences.

▸ **Web Components Development :**

Using HTML, CSS, Javascript, Tailwind, Framer Motion developed 25 fully customized React and D3.js data visualization components from scratch, enabling real-time graphical representation of complex data relationships.

▸ **Animation and Visual Effects Design and Development :**

Individually designed and implemented over 40 UI animations and visual effects using Framer Motion and other animation libraries, boosting user interaction satisfaction by 80% and enhancing visual appeal. Optimized animation performance by 37% using Google performance analysis tools.

▸ **Frontend-Backend Integration and Deployment :**

Conducted over 10 large-scale data integration tests with backend services, ensuring 99% system stability and data accuracy. Packed in Docker then deployed to Tencent Cloud server, ensuring high availability and access.

Personal Website (Portfolio) Link↗ Web Development

Oct 2023 - Now

Descerіption: **A personal portfolio website shows projects, skills and personality.**

Skill: **HTML | CSS | JavaScript | React | Tailwind | Framer Motion | Google LightHouse | Photoshop | Ali Cloud | Vercel | Webpack**

Contribution:

▸ **User Interface and Interactive Animation Design :**

Designed and implemented visually appealing user interfaces and over 34 interactive animations using Framer Motion and other animation libraries. Used Google Performance Analytics to optimize performance and improve site performance by 62%.

▸ **Web Development :**

Developed entire website from scratch using JavaScript, TypeScript, React, Tailwind, Redux, Webpack and more. Created 46 adaptive components for data visualization in React, adapted to desktop, mobile, and tablet to better showcase individuals.

▸ **Server Deployment and maintenance :**

Deployed the website using Webpack, Vercel and Ali Cloud to a server with domain mapping set up to ensure high availability and accessibility. Regularly maintained the web pages with missing elements and fixed unanticipated bugs on a regular basis.

Title Generater Link↗ Natural Language Processing

Feb 2024 - May 2024

Descerіption: **This NLP program generates titles for essays using a fine-tuned T-5 model.**

Skill: **Python | NLP | Huggingface | T-5 | LDA | Data Preprocessing**

Contribution:

▸ **Model Training :**

Fine-tuned the T-5 model using a dataset of 5000 BBC news essays, enhancing the model's ability to generate accurate and relevant essay titles. Employed cross-entropy loss function and AdamW optimizer for efficient training.

▸ **Data Preprocessing :**

Processed and cleaned 5000 essays from the BBC news dataset to ensure high-quality input for model training. Steps included text normalization, tokenization, stop words removal, and lemmatization.

▸ **Latent Dirichlet Allocation (LDA) Model :**

Implemented the LDA model for topic modeling, which was used to extract keywords from the essays. These keywords were then fed into the T-5 model for title generation.

▸ **Model Evaluation :**

Conducted extensive evaluations using ROUGE, BLEU, and METEOR metrics to ensure high accuracy and relevance in generated titles. Achieved a 95% satisfaction rate in preliminary tests.

Emotion Recognizer Link↗ Neural Networks

Sep 2023 - Nov 2023

Descerіption: **This neural network program recognizes 7 different emotions from facial images using a dataset of 35,000 facial expressions.**

Skill: **Python | TensorFlow | Keras | CNN | Data Augmentation | Inception V3 | ResNet-50 | DenseNet-169**

Contribution:

▸ **Data Collection and Preprocessing :**

Collected and preprocessed a dataset of 35,000 facial expressions, combining data from FER2013, RAF-DB, MMA, AffectNet, and Emotion-Domestic to ensure diverse and high-quality input data. The preprocessing steps included face cropping, contrast stretching, image sharpening, resizing, and shuffling.

▸ **Dataset Enhancement :**

Enhanced the dataset by integrating diverse facial expressions from Asian and Western sources, specifically expanding 'disgust' expressions. Addressed potential biases by acknowledging limitations in age and ethnicity representation, noting the underrepresentation of certain ethnicities, babies, and elderly individuals. Applied data augmentation techniques to increase dataset variability.

▸ **Model Training and Evaluation :**

Hyperparameter tuning involved comparing different optimizers (Adam, SGD), loss functions (categorical cross-entropy, MSE), batch sizes (16, 32, 64, 128), and epochs (20, 25, 30, 35) to determine the optimal configuration for the model. Trained the CNN model using TensorFlow and Keras on the preprocessed dataset and conducted extensive evaluations, achieving an accuracy of 73% in emotion recognition. Used a combination of batch normalization, ReLU activation functions, and advanced optimizers to enhance the model's performance. Employed models like Inception V3, ResNet-50, and DenseNet-169.

Stable Diffusion Graph to Prompts Link↗ Machine Learning

May 2023 - Aug 2023

Descerіption: **This machine learning program describes graphs generated by stable diffusion using a dataset of 20,000 graphs.**

Skill: **Python | TensorFlow | Stable Diffusion | Image Processing | Feature Engineering | Hyperparameter Optimization**

Contribution:

▸ **Model Development :**

Developed a machine learning model using TensorFlow to describe graphs generated by stable diffusion, incorporating CLIP+GPT-2 and ResNet_LSTM+GPT-2 models.

▸ **Data Collection and Annotation Feature Engineering :**

Collected and annotated 20,000 graphs, with preprocessing steps like image resizing, normalization, and augmentation. Used pre-trained models for image encoding and text tokenization, and applied data preprocessing and batching techniques.

▸ **Model Training and Optimization :**

Optimized model performance with hyperparameter tuning, achieving over 72% accuracy by adjusting batch sizes, optimizers, and learning rates.

Why Me

Learning Ability ↗ | Leadership ↗ | Communication Skills ↗ | Problem Solving ↗ | Aesthetic Attitude ↗ | Emotional Stability ↗