JOEY LI

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Experience

Full Stack Developer   **Sept. 2023 – Now**
Gelenk Networks Inc.   *Markham, ON*

- Developed both frontend and backend of a Web App **"Unifans"** 🔗 with over **200,000** registered users, utilizing **Node.js**, **Express.js**, **Vue**, **TypeScript**, **MongoDB**, **Redis**, **AWS EC2** and **AWS S3**.
- Built a real-time messaging system utilizing **WebSockets** and **Redis**, achieving the ability to send images and videos online with **MD5** checksum verification and real-time compression functionality, using **multer** and **fluent-ffmpeg**.
- Constructed an email system using Amazon Simple Email Service (**SES**) and **nodemailer**, enabling **mass emailing** of product update notifications, new message alerts, and incoming statistics.
- Integrated **Stripe**, **Paypal** and other payment gateways, supporting five payment methods.
- Designed appropriate database **indexs**, optimizing query languages and code structures, resulting in a **40%** improvement of average API response time.
- Build **Docker** image, utilized docker-compose for orchestrate Docker containers, and deployed on **EC2**. Conducted maintenance for **Linux** servers, configured reverse **proxies**, and wrote **bash scripts** for automation.
- Developed the frontend using **Vue 3** and **TypeScript**, utilized **Axios** for efficient management of HTTP requests, and implemented dynamic routing with Vue Router and utilized Composition API functions like ref(), computed(), watch(), and incorporate lifecycle hooks to manage component state and behavior.
- Leveraged **Pinia** for state management and **TDesign** and **Vant** for responsive components catering to both web and mobile platforms, and capable of a bilingual interface switch between Chinese and English.
- Wrote unit and integration test with **Mocha**, ensuring code reliability and robustness.
- Developed an AI QRCode generator 🔗 with stable-diffusion, using **Python**, **FastAPI** and **Vuetify**. Deployed the project on RunPod, achieving 300+ daily usage.
- Used **Git** and **Bitbucket** for version control, and actively participated in Agile development and team collaboration.

Graduate Research Assistant 🔗   **March 2022 – July 2023**
Western University   *London, Ontario*

- Implemented Deep Learning models using **Python** to predict amino acid sequences from tandem mass spectra.
- Trained Convolutional Neural Networks model with **PyTorch**, extracting spectral features and scoring each peak.
- Designed dynamic programming algorithm to optimize accumulated score calculations, and employed backtracking for precise sequence prediction, achieving a similar accuracy compared to other commercial models.
- Worked as a teaching assistant for courses: **Data Structures and Algorithms, Analysis of Algorithms**.

Full Stack Developer Intern   **Sept. 2020 – May 2021**
Inspur Group   *Nanjing, China*

- Developed a metrics collection and monitoring platform, processing 5 million real-time data points from data centers, and the corresponding Data Monitoring and Management System using **SpringBoot** and **React**.
- Implemented data collection system based on **Java**, **SpringMVC** and integrated with **Kafka** for message processing. Devised 10+ message subscribers catering to different data processing needs, including:
  - Parsed the content of data messages according to the protocol specifications of different manufacturers.
  - Utilized **Redis** to cache and manage last-time and real-time values and implemented KPI calculations.
- Utilized **Hibernate** as the ORM for developing RESTful APIs to support CRUD operations, and enhanced query speed by 40% through MySQL optimization.
- Developed the data management system using **React** and **Redux** for global state management. Wrote functional components and utilized React **hooks** and integrated **ECharts.js** for data visualization.

Software Developer Intern   **June. 2019 – Sept. 2019**
Sichuan KDSIYU Technology Co., Ltd   *Chengdu, China*

- Developed a full-stack business loan service for the bank based on **SpringBoot** and **Angular**.
- Developed services to work with credit bureau's API, reached 200+ daily transactions.

Technical Skills

Programming Languages: Java, JavaScript, Python, TypeScript, HTML5/CSS, SQL, C/C++
Platforms and Frameworks: Node.js, Express.js, Djaongo, SpringBoot, Kafka, Redis, VUE.js, React,Angular, Less, Mocha, MySQL, PostgreSQL, MongoDB, CouchDB, MyBatis, Hibernate, EC2, S3, Lambda, Git, Docker, Linux, WordPress

Education

Western University   **Sept. 2021 – July 2023**
Master of Science in Computer Science, GPA: 4.0/4.0   *London, Ontario*

Southeast University   **Sept. 2016 – May 2020**
Bachelor of Science in Computer Science   *Nanjing, China*