Edward Chang | Software Engineer

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Citizenship: Canadian

Skills

JavaScript (TypeScript, Node.js, React JS, Next JS, Express), HTML5, CSS, Java, Python, C++, SQL, MongoDB, Redis, CI/CD (Docker, Jenkins, Kubernetes), UNIX, Cloud Computing (GCP, AWS), Testing (Jest, K6), Git

Work Experience

Pelmorex (The Weather Network) – Software Developer (Co-op) **Jan 2023 – May 2023**

- Improved TypeScript weather description generator by 83% for hyper-accurate weather descriptions with 2M+ daily API requests.
- Reduced telemetry storage for weather description generator by 93% via aggregation and field reduction, resulting in decreased storage costs and improved data analytics.
- Implemented Jenkins pipeline in Python/Pandas to convert weather templates from Google Sheets to sqlite3 files on AWS S3. Deployed on Docker/Kubernetes. Reduced dependencies, and improved productivity.
- Full Software Development Life Cycle (SDLC) experience: requirements, analysis, design, development, testing, deployment, maintenance.

Square Enix – Online Services Programmer Intern **Jan 2022 – Aug 2022**

- Developed a Java-based API tool to track player progress across multiple platforms, improving data analytics for enhanced insights into game-player behavior.
- Implemented a C++ client-side rate limiting tool to improve game server stability during high player traffic, mitigating game-wide crashes caused by bugs/spamming, upholding the game company's interests.
- Collaborated in an agile environment with daily scrum meetings, sprints, and other agile practices to ensure efficient project delivery.

Salesforce (Formerly Traction on Demand) – Development Intern **May 2021 – Dec 2021**

- Enhanced client experience by implementing custom workflows and API endpoints in Salesforce, reducing clicks required to perform actions.

Personal Projects

NFT Portfolio (Open Source) – Lead developer

- Launched a web service from market demand, attracting 11K+ unique users and 50K+ unique sessions within a month.
- Increase of 714% in average user engagement time, from 16 secs to 1 min 54 secs, by optimizing server performance through techniques such as reducing mean-time-to-failure, implementing data caching, request queueing, and data scraping, resulting in improved user experience and increased insights.
- Conducted reverse-engineering of a website to obtain data and rebuilt the web scraper, resulting in a 502% reduced execution time, from 3.5 secs/NFT to 0.7 secs/NFT leading to more accurate pricing data.
- Developed with a microservice architecture using MongoDB, Redis, Express, Next JS, TypeScript, and Golang.

Education

Western University Bachelor of Engineering in Software Engineering