

# Peter Chen

Software Developer · Remote (U.S.) · Open to Relocate

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## EDUCATION

### Texas Christian University

*Bachelor of Science in Computer Science*

May 2025

## TECHNICAL SKILLS

**Languages:** Java, Python, SQL, JavaScript, TypeScript HTML/CSS

**Frameworks:** Spring Boot (+ Security), React, Vue.js

**Developer Tools:** AWS (S3, LightSail), Docker, Nginx, Git/GitHub

## PROJECTS

### Parcel Search | *Spring Boot, Vue.js, PostgreSQL, Docker, Nginx, AWS LightSail*

August 2024 – May 2025

- Architected a multi-tenant SaaS (**3 counties, 300,000 records**) with strict data isolation and role-based access control.
- Designed an Extract-Transform-Load (ETL) pipeline that loads **150,000 records** in less than 1 min (down from a 20 min prototype), a 95% improvement.
- Implemented end-to-end security (**Spring Security + JWT, Redis** one-time tokens, protecting sensitive data)
- Dockerized back-end behind **Nginx** reverse proxy, cutting local spin-up time to less than **5 min**.
- Integrated **Authorize.Net** subscription APIs, automating renewals and saving sys-admins approximately **4h per month**.

### Portfolio | *GitHub Actions, Docker, Nginx, AWS EC2, HTML/CSS/TypeScript*

2025

- Designed a CI/CD pipeline for a **1 GB RAM** EC2 host by offloading builds to **GitHub Actions** and pulling prebuilt artifacts/images on the instance, eliminating deploy freezes.
- Configured **Nginx**+TLS on **EC2** and cut over DNS via **Cloudflare** (proxied).
- Built a responsive and adaptive portfolio page (dark/light mode, mobile-friendly, subtle animations) as the front door to projects.

### Tank Game | *JavaFX, Github*

September 2024 – December 2024

- Designed a sweep-and-prune collision detector (sorted x-axis + sliding active set) that pruned pairwise checks vs. naive  $O(n^2)$  and sustained smooth gameplay with approximately 150 concurrent AI tanks
- Added a **GameObjectManager** to decouple game state updates from rendering via an entity list and renderer map.
- Implemented a **GameObjectFactory** (Factory Method) to centralize and standardize entity creation.
- Built distance- and line-of-sight-based targeting for AI to pursue the nearest enemy and fire missiles.
- Applied multi-level inheritance (**GameObject** → **Tank** → **PlayerTank/AITank**) for shared core logic with polymorphic behavior.

## EXPERIENCE

### Freelance Software Engineer

May 2025 – Jun 2025

- Executed **AWS Lightsail** → **DigitalOcean** migration, DNS record updates (A/CNAME) with propagation validation and mirrored network rules in DO Cloud Firewalls to match AWS Security Groups, reducing infra cost
- Implemented an auth skeleton in **Spring Boot (Spring Security)** with role-based access, password hashing, and CORS/CSRF configuration.

## RELEVANT COURSEWORK

Analysis of Algorithms, Operating Systems, Database Systems, Computer Systems, Cloud Computing, Web Technologies, Software Engineering, Object Oriented Design