

Peter Wang

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EXPERIENCE

Software Engineer II

June 2024 - Present

Schweitzer Engineering Laboratories

Pullman, WA

- Architected three C#/.NET services over RabbitMQ, TCP, and REST automating selective solder program selection; cut cycle time 18% (+60 boards/day), stable in 24/7 production since launch
- Devlivered a three-tier C# supervisor/worker/client stack over RabbitMQ for through-hole automation, adapted from a sister team's pattern; live on 7 machines across 6 lines at 2 sites
- Hardened driver connectivity with automatic TCP/IP reconnect, exponential backoff, and machine heartbeat monitoring; stateless restarts recover mid-cycle without losing machine state
- Normalized SMEMA handshakes and proprietary protocols from 30+ machines and devices across 6+ vendors into IPC-CFX, unifying inter-service messaging and Splunk/Azure telemetry
- Sole developer of the React/MUI client for a preventive maintenance platform, caching 10k+ ID-linked records in Jotai for instant local editing and multi-level revert; used by 30%+ of manufacturing
- Directed schema and API design behind it, rolling out org-wide: four-level many-to-many hierarchy with frequency scheduling and immutable execution records
- Migrated Flying Probe testing from WPF to a React/Redux dashboard polling machine state for board queues, barcode-miss imaging, and pass/fail across 3k+ PCBs daily
- Built a RabbitMQ/CFX developer client on personal initiative, giving the team its first practical way to test messages without a live machine; adopted by all four engineers
- Mentored a junior developer building a Blazor RabbitMQ monitor with live filtering over 5k+ events and self-service driver recovery, cutting escalations to near zero

Software Engineer Intern

March 2022 - April 2024

METER Group

Pullman, WA

- Leveraged React and Material UI to create ZENTRA webpages and components used by over 90% of users
- Deployed a Python weather data pipeline on AWS Lambda and DynamoDB via Serverless Framework for soil moisture predictions
- Optimized query scripts for Django models, handling over 150k objects, to assess customer habits

EDUCATION

Washington State University

Pullman, WA

Bachelor of Science in Software Engineering w/ Math Minor GPA: 3.7

Aug. 2020 - May 2024

TECHNICAL SKILLS

Languages: C#, TypeScript, JavaScript, Python, Rust, SQL, HTML, CSS, C/C++

Frontend: React, Redux, Jotai, Next.js, Blazor, MUI, Tailwind

Backend: .NET, Django, REST, xUnit, PostgreSQL, DynamoDB, Supabase

Messaging & Protocols: RabbitMQ, IPC-CFX, SMEMA, TCP/IP

Infrastructure: Docker, Kubernetes, Helm, Jenkins, AWS Lambda, Azure, Splunk, Git

PROJECTS

VGCLite vgclite.com | Claude, Typescript, NextJS, Tailwind CSS, Vercel

June 2026 - Current

- Architected a Pokémon VGC scouting web app that surfaces opponents' most common builds, runs damage calculations, and compares speed tiers to flag matchup threats against the user's team
- Kept lookups fast with a tuned caching layer over Pikalytics and Smogon data behind Next.js route handlers, auto-discovering the latest published stats period at runtime
- Eliminated redundant API calls and race conditions from out-of-order responses via a client-side caching and request-deduplication layer with optimistic loading placeholders and stale-write guards

Pokémon Team Builder peterptb.vercel.app | Typescript, NextJS, Radix UI

August 2025 - March 2026

- Built a Pokemon team advisor web app to create type balanced teams across all mainline games
- Designed a weighted scoring algorithm that rates each type against current team coverage, guiding users to the most type-comprehensive team