

William Li

Sacramento, CA • Williamli3313@gmail.com • github.com/W3313 • linkedin.com/in/w336

EDUCATION

American River College - Sacramento, CA

Computer Science, transfer track (CS transfer curriculum toward the CSU/UC system)

Coursework: Data Structures, Discrete Structures, Object-Oriented Programming in C++, Linear Algebra, Calculus, Physics (Electricity & Magnetism)

TECHNICAL SKILLS

Languages: C++ (C++17), Python, JavaScript, TypeScript, Java, HTML/CSS

Libraries & Frameworks: React, three.js, SFML 3, Node.js, pandas, NumPy, LightGBM, STL

Tools & Platforms: Git/GitHub, REST APIs, Cloudflare Pages & Functions, Vite, Vitest, Playwright, Tailscale, Linux, macOS, Windows

PROJECTS

paurk.com - Client-Side Place Discovery App | React, TypeScript, three.js, Vite 2026

- Shipped a static web app that ranks 604 public spots across 44 cities for the current moment, scoring each by period of day, live weather, chosen vibe, and walking distance, and explaining every top pick in one line.
- Built a custom three.js globe with dot-matrix land sampled from world-atlas at build time and a real day/night terminator refreshed every minute, plus a d3-geo 2D fallback when WebGL is unavailable.
- Computed sunrise, sunset, and golden hour on-device with SunCalc and pulled keyless forecasts from Open-Meteo, keeping the app fully client-side with no backend, map tiles, or API keys.
- Held the first load to 170 KB gzipped by deferring the globe engine and per-city content; covered geo, sun-time, and ranking logic with Vitest and automated 44 px tap-target checks in headless Chromium.

Tool Dependency Graph Generator - Agent Action Planner | TypeScript, Node.js, OpenAI API 2026

- Built a generator that reads any API toolkit's catalog and infers which actions must run first to supply another's inputs; mapped GitHub's 893 tools into a 7,376-edge graph with an interactive viewer.
- Hit 84% top-1 accuracy against an independently labeled 40-tool gold set, using schema-backed matching plus an LLM pass that can only prune; 316 automated tests caught 11 bugs.

67miles.com - Static Site with Serverless Admin Panel | JavaScript, Cloudflare Pages Functions, GitHub REST API 2026

- Designed and shipped a live multi-page site with a photo wall, live day counter, task tracker, and a jigsaw puzzle generator built from user-supplied images.
- Built a password-gated admin panel backed by a Cloudflare Pages Function that authenticates server-side and commits content edits through the GitHub REST API - keeping the write token off the client and enabling edits from any device without touching source files.
- Set up continuous deployment from GitHub to Cloudflare Pages with a custom domain and automatic builds on push.

Algorithmic Trading Research System - Paper-Trading Engine | Python, Node.js, LightGBM 2026

- Built an end-to-end BTC paper-trading pipeline: market data ingestion, feature engineering, ML signal generation, and simulated order execution with full trade logging.
- Engineered market-structure features (order blocks, EMA pullback breakouts, liquidity sweeps) and trained a LightGBM classifier on 90 days of Binance OHLCV data (0.567 AUC), with rolling retraining to counter model drift.
- Modeled exchange fees, position sizing, and risk/reward geometry in the backtester; traced and fixed stale-data, duplicate-process, and fee-drag defects that were inflating simulated returns.
- Deployed across a macOS compute host and a Windows execution gateway networked over a private Tailscale mesh.

Learn Pickleball - Interactive Rules Trainer | C++17, SFML 3 2026

- Desktop application teaching pickleball rules through eight lessons with animated court diagrams rendered in SFML.
- Implemented an adaptive quiz engine that tracks per-question accuracy and resurfaces missed questions until the user demonstrates mastery.
- Organized as a multi-file C++ project using STL containers, RAII resource management, and exception-handled file I/O for persisting progress between sessions.