Dmitrii Manchurak

Seattle, WA · manchurakd@gmail.com · (206) 406-6332 · manchurakd.me · github.com/ManchDi · LinkedIn

Frontend-focused full-stack developer with a track record of shipping production AI-powered web applications. Built and deployed Pagekin — a personalized AI storybook app with real-time multi-service orchestration, Web Audio API integration, and client-side PDF export — entirely independently. Experienced delivering client-facing products for non-profits, with measurable business impact. B.S. in Computer Science, CWU.

TECHNICAL SKILLS

Frontend: React 19, TypeScript, JavaScript (ES2023), HTML5, CSS3, Tailwind CSS, Vite
AI / APIs: Gemini 3.1 Flash Lite (text gen), Gemini 2.5 Flash TTS, HuggingFace FLUX.1-schnell, Web Audio API (raw PCM)
Backend / Infra: Node.js, PHP, Vercel Serverless Functions, Docker, Kubernetes, GitLab CI/CD, AWS, GCP
Tools & Other: jsPDF, MediaRecorder API, WordPress (plugin dev), MySQL, PostgreSQL, Git, OpenShift
Languages: JavaScript, TypeScript, Python, Java, C++, C#, PHP, SQL

PROJECTS

Pagekin — AI-Powered Children's Storybook App pagekin.vercel.app *2026*

Designed and built end-to-end: React 19 + TypeScript frontend, Vercel serverless proxy, multi-AI backend with failover.

- Implemented background prefetch pipeline — generates text and illustrations for pages N+1 and N+2 while user reads current page, reducing perceived load time to near-zero
- Integrated 3 independent AI services (Gemini text, Gemini TTS, HuggingFace image) with service-specific quota handling and automatic API key rotation across 3 keys per service
- Built full-story playback engine with auto-page-advance, background image loading, and seamless recording→TTS transition detection using Web Audio API raw PCM decoding
- Engineered client-side PDF export with first-story illustration as cover art using jsPDF; LocalStorage session persistence for up to 5 saved stories
- Deployed on Vercel with git-branched staging (dev) / production (main) workflow and integrated Vercel Analytics

Stack: React 19, TypeScript, Gemini API, HuggingFace, Web Audio API, jsPDF, MediaRecorder API, Vercel

Roots2Wings — Non-Profit Website roots2wingsfg.com   *2025*

- Designed and deployed full website for a non-profit supporting neurodivergent individuals; integrated Mailchimp email automation for donor/volunteer communication
- Built custom WordPress plugin for dynamic page generation and content management, eliminating manual update work for staff

Stack: WordPress, PHP (custom plugin), JavaScript, Mailchimp API

AI Coloring Book Creator GitHub   *2025*

- React app using Gemini API to generate themed coloring pages on demand, compiled into downloadable PDFs via a custom PDF service

Multithreaded Cell-War Simulation GitHub   *2023*

- Built a configurable real-time battle simulation in C++ with POSIX pthreads — each soldier runs in its own thread competing over a shared grid using atomic operations and concurrency control

Stack: C++17, POSIX Threads, atomic operations, std::chrono

EXPERIENCE

Freelance Web Developer · **Self-Employed** · Remote *2024–Present*

- Delivered production websites and tools for multiple clients including non-profits; scoped requirements, designed, built, and maintained all solutions independently

- Built internal workflow tools at SETC that saved measurable staff hours per week by automating recurring manual tasks
- Full redesign of SETC's WordPress site including custom PHP plugins, improving usability and cutting maintenance overhead

Backend Engineering Intern · **Edifecs** · Seattle, WA*Jun–Aug 2024*
- Streamlined Kubernetes deployment processes in a distributed cloud environment, improving scalability and reliability
- Automated CI/CD deployment workflows via GitLab, reducing manual intervention and increasing operational efficiency
- Integrated Docker containerization to support continuous development across teams

Frontend Developer & Development Specialist · **SETC (Special Education Technology Center)** · Ellensburg, WA*2023–2025*
- Served as primary technical owner for the organization's web presence and internal digital systems
- Identified operational bottlenecks and independently conceived, built, and shipped internal tools — saving multiple hours of staff work per week
- Redesigned WordPress site from scratch; built custom PHP plugins and integrated cloud services

EDUCATION

Central Washington University   *2024*

B.S. Computer Science · Minor: Mathematics & Cybersecurity · GPA: 3.5

Relevant coursework: Data Structures, Algorithms, OS, Networking, Databases, Cybersecurity, UI/UX, Web Development, Dynamic Programming

Cascadia Community College   *2019*

A.A. Integrated Arts · Focus: Web Development, Accessibility, UX