David Pan

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TECHNICAL SKILLS

Programming Languages/Frameworks/Libraries/Design Software

- Python, C++, HTML, CSS, JavaScript, React.js, Next.js
- AutoCAD, SolidWorks Done lots of designing complex machine parts and assemblies

EXPERIENCE

Coding Pals Vancouver, BC

Program Director

October 2021 - August 2024

- Oversaw 40+ volunteers and classes for 700+ students as Program Director
- Boosted term enrollment 98% with nation-wide outreach post-COVID
- Designed the Beginner (Grades 7-10) and Intermediate (Grades 10-12) Competitive Math curricula that has been continuously in use every term since 2021
- Updated the codebase of the Coding Pals website each term, implementing new features and improvements through regular maintenance
- Conducted 50+ Zoom interviews for instructor applications and assisted in hiring 20+ instructors for classes
- Taught Coding Pals Competitive Math, C++, and Python for 5+ terms, instructing 500+ students
- Achieved a 95%+ student satisfaction rate, with students reporting improved math and programming skills

Projects

Personal Website Portfolio

- Developed a dynamic personal portfolio website using Next.js and Tailwind CSS
- Integrated smooth animations and interactions using framer motion
- Implemented dark and light modes with Tailwind CSS
- Designed and organized responsive layouts with Tailwind's utility-first approach, optimizing for both desktop and mobile platforms
- Utilized dynamic routing with Next.js for smooth navigation between sections

CryptoLens

- Developed a dynamic cryptocurrency marketplace web application using **React.js and CSS**, featuring real-time data fetching using the CoinGecko API, enabling users to view and search for cryptocurrency details, historical prices, and market trends
- Implemented live search, state management, and multi-page routing for seamless user interaction and currency customization
- Developed interactive data visualizations with Google Charts to showcase historical price trends, optimizing insights for users
- Enhanced performance and reliability with efficient API integration, error handling, and reusable React components for scalability
- Improved UI/UX design through modular components and custom CSS, ensuring responsiveness and accessibility

Automated Python Email Sender

- Developed an automated email sender using smtplib, securely connecting to Gmail's server and reducing manual email handling by 80%
- Integrated CSV-based data for dynamic email content, enabling personalized communication across 500+ recipients per campaign, improving open rates by 25%
- Reconnected with 300+ past participants, contributing to a 20% boost in class registrations post-pandemic and improving community outreach efficiency by 40%

UW Robotics Design Team

Waterloo, Ontario

Software Bootcamper

November 2024 - Present

- Developed a ROS2 multi-component system for Turtlesim, implementing custom publishers, services, and actions for robotic simulation and inter-process communication
- Created modular launch files and used Git for version control to manage and deploy the ROS2 system

EDUCATION

University of Waterloo

Software Engineering, Bachelor of Software Engineering