Daris Chen

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Education

University of California San Diego La Jolla, CA 92092
Computer Engineering B.S.
Relevant Coursework: Computer Organization and Systems Programming, Data Structures and Object Oriented Design, Discrete Mathematics, Mathematics for Algorithms and Systems, Linear Algebra, Data Structures, Software Engineering, Signal Analysis for Circuits and Systems, Analog Design

Skills

Languages:	Python, Java, C, C++, ARM, HTML, CSS, Javascript
Libraries and Frameworks:	React.js, Node.js, Express.js, Socket.io, JUnit, Linux, Ubuntu, Svelte, Tailwind, NumPy, pandas, Matplotlib, Tensorflow, CUDA, cuDNN
Developer Tools:	Git, Visual Studio, Jest, Puppeteer, MongoDB, CodeMirror, Miro, Jira, Figma

Projects

Red Pitaya Hackathon *Red Pitaya, Vivado by Xilinx, Python, Signal Processing, Soldering Iron, FPGA, VHDL*

- Engineered half-duplex infrared systems, boosting transmission efficiency by 75% on the Red Pitaya in simulated space conditions.
- Eliminated 3 of 4 steps to encode, transmit, and decode messages, decreasing the number of possible failure points and ensuring reliable communications.

Stock Analysis and Prediction AI *Git, Tensorflow, Jupyter, Numpy, Pandas, Adaptive Moment Estimation, Mean Squared Error*

- Developed and trained a Long Short-Term Memory deep-learning Recurring Neural Network for predicting stock prices based on historical price points, Bollinger bands, moving averages, daily trade volume, and the stochastic oscillator.
- Boosted computational efficiency by 30% through optimizing multi-million-line datasets sourced from Yahoo Finance and Kaggle using gradient descent and the Adam algorithm, reducing data processing time from 4 hours to 2.8 hours.
- Helped users generate 15% more return on investment over a 3-month period in testing simulations, resulting from an increased stock behavior prediction accuracy of 22%, while factoring fear index weighting.

Groundwork Books Full-Stack Commercial Website *Svelte, Firebase, Square, Google Forms API, Tailwind*

- Architected a robust e-commerce platform handling a catalog of over 2000 books, incorporating Square's payment API and Google authentication to ensure secure transactions and efficient user management.
- Crafted a highly responsive interface using Tailwind CSS and Svelte components, boosting load times by 40% and ensuring seamless functionality across all devices
- Established a real-time inventory management system with Firebase Database for streamlined product tracking and order processing.

Hearthpebble *MongoDB, Express.js, React.js, Node.js, Socket.io, Axios, ThreeJS, GSAP*

- Built a full-stack web-based 1-on-1 card game inspired by Hearthstone.
- Developed a real-time multiplayer game using Three.js and GSAP for 3D rendering, seamlessly integrating WebSockets to enable real-time interactions.
- Orchestrated seamless integration between React.js frontend and backend by developing RESTful APIs with Node.js, Express.js, and Axios, enhancing data flow efficiency and application performance.
- Created a MongoDB database system to efficiently store and retrieve user profiles and activity logs, ensuring real-time access to critical user data.

Experience

Project Manager Mar. 2024 - Jun. 2024
University of California, San Diego, CSE 110 La Jolla, CA 92092

- Oversaw the CI/CD pipeline, achieving a 30% reduction in deployment errors and realigning team objectives to meet the Iron Triangle's quality, scope, and timeline requirements.
- Led the creation of 50+ user stories, assigning accurate story points to prioritize tasks, which enabled efficient rollouts of 10+ core features across project sprints.
- Optimized task allocation and backlog organization, accelerating key feature delivery by 25% and reducing completion time from four to three weeks.
- Spearheaded daily stand-ups and bi-weekly sprints within the Agile Scrum framework, enhancing communication among team members by 40% and boosting project delivery timelines by 33% while ensuring alignment on project objectives across a team of 12 members.