

Vu Dinh

veltaldev@gmail.com • (626) 392-1131 • veltaldev.github.io

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LotusFlare Hiring Team

When my uncle asked me to find a generic timeclock on Amazon to improve his manual payroll process, I saw an opportunity to architect a solution rather than buy a tool. I designed and built a production-grade, distributed payroll platform from first principles. What started as a challenge is now a live system that has reduced their payroll processing time by over **95%**—transforming a 90-minute stress test into a 5-minute task.

This project was not a tutorial; it was an exercise in operational reality. I engineered a Flutter-based kiosk for offline reliability and a Python/FastAPI backend to handle complex temporal boundaries—payroll days that start at 5 AM, biweekly periods, blended overtime calculations, and 15-minute time rounding. The hardest challenge wasn't the code, but the compliance: I had to implement logic for California labor laws, including overtime calculations, meal penalties, and shift splits. I deployed this into an environment where mistakes have legal and financial consequences.

The technical architecture matters, but what I'm most proud of is how the system serves its users. I know the three-phase workflow reduces cognitive load during payroll because I was the one spending 90 minutes every pay period manually processing timesheets before I built this system. That operational experience informed every design decision—from the anomaly detection that surfaces issues requiring human judgment to the single-button employee interface that makes clocking in effortless for non-technical users. The system converts hundreds of raw database entries into actionable administrative insights, turning what was once tedious manual reconciliation into a streamlined verification process.

Building this system taught me that engineering is about understanding operational pressure and designing solutions that hold up under real-world constraints. I didn't just observe how the work was done; I lived it, identified where the friction points were, and engineered solutions for real users.

A friend on your engineering team has shared insights into the culture of thoughtful problem-solving at LotusFlare, and it's a place I would be excited to contribute to. I am eager to bring this combination of technical rigor and operational empathy to your team, and to learn from experienced engineers who are solving problems at scale.

Thank you for your time and consideration.

Sincerely,

Vu Dinh