

Katrina Vea C. Novenario

Toa Payoh Central, Singapore | veanovenario.tech@gmail.com | www.linkedin.com/in/veanovenario

SUMMARY

Software Engineering Manager and **Technical Lead** with **16 years of experience in the software industry**, building and driving the end-to-end delivery of multi-platform systems and launching into production across mobile, web, and desktop solutions in domains such as FinTech, E-Commerce, Retail Tech, Travel Tech & Digital Tourism, Health Tech, EdTech, Enterprise Software, Sports Tech, Fitness Tech, Event Tech, Gaming & Entertainment, Logistics Tech, MarTech, Utility Apps, Civic Tech, GovTech (Philippines), Rail Transit Systems, Renewable Energy Systems. Versed in full SDLC, architectural design, and leading cross-functional collaboration across frontend, backend, firmware, hardware, UI/UX, QA, and project management teams. **Certified ScrumMaster® (CSM®)** with experience in **agile, iterative, and waterfall methodologies**. Passionate about engineering solutions that solve real-life problems and impact millions of users worldwide.

Key Delivery Achievements

- **Launched 48+ multi-platform systems** into production, **used in real-world customer environments** with continuous daily usage and operational activity.
- As a software engineer with hands-on coding experience, **developed 47+ applications** across iOS, Android, Web, and Desktop, **all deployed to production** and excluding personal projects, R&D work, and POCs.
- As a Technical Lead, drove cross-functional teams to build and **ship 17 multi-platform product releases** for clients.
- As a Solutions Architect, **designed and delivered 13 end-to-end solutions** with a strong focus on system architecture and customer requirements.
- As a Software Manager, established a **2-year** track record across multiple companies, **leading engineering teams**, representing them at the management level, elevating delivery standards, and driving measurable improvements in performance and execution.

TECHNICAL SKILLS & TOOLS

Experiences for the last 5 years

Programming Languages: Swift, C# (.NET 6/8 WPF), Java (Android), JavaScript, HTML, CSS, NodeJS, Python, Flutter (via FlutterFlow)

Cloud Platforms: Amazon Web Services (AWS), Google Firebase

Mobile Distribution Platforms: App Store Connect, Apple Developer Portal, Google Play Console, Google Play Developer Account

Databases: PostgreSQL, MSSQL, DB2, InfluxDB, SQLite, Amazon DynamoDB, Cloud Firestore

Communication Protocols: HTTP/HTTPS, MQTT, Modbus, CANbus, RS-232 Serial Communication

Development Environments: XCode, Visual Studio Professional, Visual Studio Code

Collaboration Tools: Bitbucket, GitHub, Fork, SourceTree, TortoiseSVN, Confluence, JIRA, Trello, ClickUp, Postman, Insomnia, Microsoft Copilot

Payments Integration: PayPal, Stripe

Monitoring and Analytics: Sentry, Firebase Crashlytics, Firebase Analytics (Google Analytics), Mixpanel

Security Scans: Mobile Security Framework (MobSF), OWASP, Penetration Testing, SonarQube

Certification: Certified ScrumMaster® (CSM) certification issued in Oct 2018 (Credential ID: 953485)

PROFESSIONAL EXPERIENCE

ST Engineering Urban Solutions Ltd, Singapore

April 2024 - Present

Software Engineering Manager & Technical Lead (Mobility Rail, Platform Screen Doors)

- Lead the continued development and enhancement of the MONIDOOR suite, evolving from early prototypes into production-grade applications used for real-time monitoring, diagnostics, and configuration of Gen2 Platform Screen Doors (PSD), the safety barrier system used in train and metro stations.
- Achieved 100% completion of all baseline products and is actively adapting and deploying for international rail projects across 50+ train stations in Singapore, Australia, India, Thailand, and Taiwan.
- Lead and guide a team of software engineers, ensuring high-quality delivery and timely completion of project milestones.
- Manage performance reviews, task planning, technical guidance, and product execution while managing project schedules, delivery milestones, and coordinating with hardware, firmware, control, procurement, and project teams to align timelines and accelerate integration.
- Provide strategic planning and OKRs for the software team, defining quarterly targets, measurable outcomes, and long-term technical roadmaps.
- Establish next-year goals focused on product reliability, delivery speed, new feature development, and team capability growth.
- Represent the software team in management discussions, escalations, and decision-making.
- Introduced Bitbucket and Jira to streamline version control and issue tracking, improving workflow efficiency, traceability, and documentation quality.
- Perform manual QA testing, prepare test procedures, and author and maintain SIL-compliant documentation, deployment manuals, user guides, and technical references, ensuring completeness, compliance, and audit readiness while enabling project teams to perform 90–100% independent installations.
- Refactor and unify legacy code into a modular architecture, reducing executable code by 41%, improving scalability, eliminating redundancies, and addressing root-cause issues for long-term maintainability.
- Optimize software performance by reducing communication latency by ~99.99% (from >1 min to ≤2 ms) and cutting GPU load by up to 95% to significantly improve responsiveness and stability.
- Introduce configurable builds, reducing release preparation time by 96% (from ~50 minutes to 2 minutes).

May 2023 - April 2024

Senior Software Engineer (Mobility Rail, Enterprise Asset Management System)

- Maintained the Maintenance Management System (MMS) for a government transport authority in Singapore.
- Took part in data migration activities and populated records into the live system.

Massive Infinity Pte Ltd, Singapore

July 2019 - April 2023

Solutions Architect

- Delivered 9 end-to-end system solutions across Web, iOS, and Android platforms for both large enterprises and startups.
- Strengthened sales and project scoping by translating client requirements into scalable, feasible technical solutions, providing more accurate project estimates leading to smoother execution and delivery cycles.
- Collaborated with clients to understand requirements and provide technical consultations that enabled business transformation through technology, ensured alignment with business goals, and led to high client satisfaction.
- Planned and designed overall system architectures, data flows, and API structures for complex digital products, producing technical diagrams and documentation that improved implementation efficiency for developers and enabled faster project delivery.

July 2018 - April 2019

Mobile Engineering Lead

- Handled team leadership responsibilities, overseeing performance reviews, mentoring, skill development, and career progression, while also supporting hiring through technical interviews and onboarding.
- Collaborated with project managers to prioritize technical tasks, ensuring optimal development progress and resource utilization.
- Worked with management to optimize company processes to accelerate development and improve understanding between technical and non-technical stakeholders, ensuring clearer interpretation of specifications in both directions.
- Led the growth of the company's technical knowledge base, introduced internal process improvements, and managed access control to maintain operational security and knowledge sharing.
- Contributed as one of the social media managers, handling content, posting, and engagement.

August 2015 - July 2023

Senior Mobile Application Developer & Technical Lead

- Delivered full hands-on development for 24 production-grade mobile apps across iOS and Android, with primary focus on iOS coding using Swift and Objective-C for legacy support, and occasional Android coding using Java.
- Led the end-to-end iOS development lifecycle, from architecture and feature implementation to App Store releases.
- Led a mobile development team to deliver 11 high-quality, high-performance, responsive multi-platform applications, using Agile Scrum methodology.
- Managed cross-platform development by coordinating iOS and Android teams to ensure consistent behavior across both platforms. Directed full-cycle releases, including beta testing, repository management, analytics setup, App Store and Google Play deployments for commercial and enterprise builds, and overall development tool management.
- Mentored junior developers and drove improvements in development processes and tools.
- Contributed to improving sprint planning, backlog grooming, code quality, code security, and technical documentation clarity.

Cambria Software Philippines Inc, Makati, Philippines

June 2014 - July 2015

Senior Mobile Application Developer & Technical Lead

- Published 6 iOS and Android apps, helping clients launch startup products.
- Took full ownership of all iOS and Android projects, leading development and maintenance, managing repositories and API documentation, ensuring proper architecture and UI consistency, and handling app distribution through Google Play and the Apple App Store.
- Spearheaded technical direction and cross-functional collaboration as Technical Lead, aligning mobile developers, web developers, and UI/UX designers to ensure cohesive product delivery.
- Collaborated closely with clients to provide technical consultation and design solutions, advise on project planning, prepare proposals and cost estimates, and manage schedules and deliverables with consistent progress reporting.

MobileMINDS Inc, Makati, Philippines

June 2011 - May 2014

Senior Software Developer & Technical Lead

- Delivered 10 high-impact mobile and enterprise applications, including iOS, Android, and JSP-based web solutions, using an iterative development process to support critical business operations.
- Served as technical lead on projects, collaborating with software architects to design customer-focused solutions that met business and user needs.
- Drove mentoring, leadership, and technical guidance efforts for junior developers in a small, close-knit team environment.
- Added value in client meetings by addressing technical concerns and outlining solution approaches.
- Facilitated Oracle WebLogic Portal workshops to equip clients with the knowledge to deploy, configure, and maintain delivered solutions.

Seer Technologies Inc, Makati, Philippines

June 2009 - May 2011

Software Developer

- Published 3 BlackBerry J2ME applications to the BlackBerry World, managing end-to-end deployment and maintenance.
- Delivered enterprise integrations and deployed a JSP-based web application on Oracle WebLogic Portal for the largest private electric distribution company in the Philippines.
- Conducted R&D and POC initiatives on iOS and BlackBerry J2ME to explore, prototype, and validate emerging mobile technologies for future client solutions.
- Engaged directly with clients to address technical concerns and recommend solution approaches.

EDUCATION

2005 - 2009

De La Salle University, Manila, Philippines

Bachelor of Science degree in Computer Science, Major in Software Technology