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| balakumar K  Chennai, India · +91 9003043332  Balakumar.kaliyaperumal@gmail.com |
| 17+ years of delivering high-quality results through Product, System, and Software Management that gives par excellence value to the customer by bringing together advanced technologies, tools, and processes Career Highlights  * Successful history of managing complex engagements, creating cross-functional teams, and managing deliveries across multiple global locations and technology stacks. * Quick learner and had smooth transitions across various platforms in HMI development * Extensive experience in all phases of SDLC, including gathering and grooming Business Requirements, Portfolio Management, Scheduling, Project Planning, Test Management, Defect Management, reporting, etc., and using the SAFe Agile Model * Technically managed a large team with more than 20 members which was built from the ground and executed End-End Product development  Skills  |  |  |  |  | | --- | --- | --- | --- | | * Product management * Google Polymer * Angular * Ionic / Electron | * C++ * VC++ / MFC * Python * JavaScript | * WinCE * Windows * Linux * HTML5 | * Android * CAN / J1939 * SAFe Agile * HMI |  Experience  |  | | --- | | Mar 2012 – PresentEngineering Specialist, **Caterpillar Inc** Delivered Next Gen Visualization software for Longwall Mining (Product Owner / UI Architect)  Delivered Semi-Autonomous Command and Terrain for Drilling software for Rotary Drills (Software Engineering Team Lead / Architect / Developer)  Delivered display software for Articulated Trucks (Software Team Lead / Developer) | | Sep 2010 – Mar 2012Lead Engineer, **HCL technologies** Delivered display software for Multi-Function Printers (Developer) May 2006 – Sep 2010Senior project Engineer, **Wipro technologies** Implemented WinCE based File Explorer, screen capture and voice recorder applications for a mobile internet device (Developer)  Implemented WinCE based GUI widgets and screens for a Navigation device (Developer)  Created Testbed to perform Integration Testing of Smoke Detection Function software of a leading aircraft manufacturer (Developer) |  PROJect EXPERIENCE AND ACCOMPLISHMENTS **Next Generation Visualization Software** Oct 2021 – Mar 2023  Role: Product Owner / UI Architect  Technology: JavaScript, Angular 9, azure devops, CI/CD pipeline   * Managed and executed the delivery of the visualization software for Longwall mining equipment by working with cross-functional teams (Development, Validation & Documentation). * Identified the product requirements by collaborating with Customers, the Marketing team, Engineers, UX/UI Designers and Architects. * Executed Milestone planning, Release planning and SOWs. * Facilitated code review of the UI software   **Autonomous Drilling System Program** May 2015 – Oct 2021  Roles: Software Engineering Team Lead / Architect / Developer  Technology: C++, python, JavaScript, HTML5, Angular 9, Ionic (Android), Electron (Windows), Linux   * Delivered the Command for drills software based on thin client architecture, which can be used across multiple display devices such as Onboard display, Desktop/Laptop display, and Mobile devices (Android) and also, a Primary display can have and control any number of secondary displays * Managed the delivery of Base Machine Display, Terrain For Drilling and Integrated Terrain For Drilling programs by providing project and technical leadership * Enabled the team to deliver the committed content by grooming features and user stories * Conceptualized and demonstrated the technical capability to develop autonomous features through multiple proofs of concepts * Promoted and embraced agile software development methods in line with company objectives   **Rotary Drills – Base Machine Display** Sep 2013 – May 2015  Roles: Team Lead / Developer  Technology: C++, Windows 7 Embedded, SQLite, JAUS, CANopen   * Managed and developed the display software for the Drills machine   **Articulated Trucks – Color Display** Mar 2012 – Sep 2013  Roles: Architect / Developer  Technology: C++, WinCE, CAN/J1939   * Software design and development of WinCE-based color display for Articulated truck operators   **Multifunction Printer OEM** Oct 2010 – Mar 2012  Role: Developer  Technology: C++, Linux   * Implemented the display software for the printer   **Mobile Devices OEM**  Jul 2008 – Sep 2010  Role: Developer  Technology: C++, WinCE, Windows Mobile, Android   * Implemented multiple software applications for WinCE-based mobile internet devices   **Navigation Devices OEM**  Jun 2007 – Jul 2008  Role: Developer  Technology: VC++/MFC, WinCE   * Implemented various features for WinCE-based navigation devices   **Avionics OEM**  Jun 2006 – Jun 2007  Role: Developer  Technology: C++, Linux   * Created a testbed for performing integration testing of software for a leading aircraft manufacturer |

# Education

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| apr 2023Postgraduate Program in artificial intelligence & Machine LEARNING, **university of austin, texas** Collaborative Program with Great Lakes, Chennai feb 2006Postgraduate diploma in embedded systems design, **national institute of electronics & information technology, Kozhikode** |
| may 2005bachelor of technology, **sastra university, Thanjavur**  Electronics & Instrumentation Engineering |