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Professional Experience

Workcuit AI

Product Engineer

Feb 2025 - Present

- Led the full development and deployment of an AI-driven hospitality management platform, guiding the product from concept to launch and ensuring a seamless experience for users across multiple properties.
- Improved system performance by 20% by designing and integrating RESTful APIs that enabled reliable, real-time communication between front-end applications and backend services.
- Strengthened platform scalability and reduced query latency by 15% through the optimization of Angular components, Firebase functions, and Firestore database structures.
- Streamlined engineering workflows and automated key processes, resulting in a 30% boost in development velocity and faster feature delivery.
- Elevated user satisfaction scores by 15% during beta testing by conducting thorough UI/UX evaluations, gathering user feedback, and refining features to match real-world needs.
- Reduced deployment timelines by 20% by managing cloud infrastructure on Firebase and Render and building efficient CI/CD pipelines to support rapid releases.
- Enhanced cross-team collaboration and onboarding efficiency by 25% through the creation of clear technical documentation, API references, and detailed product roadmaps.
- Delivered actionable business intelligence by building AI-powered dashboards and generative assistants that improved decision-making speed and operational efficiency for clients.
- Partnered directly with company founders on long-term product strategy and go-to-market planning, ensuring engineering priorities aligned with business goals and user demands.
- Supported customer adoption and long-term engagement by conducting on-site deployments, delivering product training sessions, and providing ongoing technical support.

Purdue University Northwest

Jan 2023 - Dec 2024

Research and Student Assistant

- Advanced supply chain optimization research by conducting statistical analysis on efficiency ratios, OEE, and reject rates, enabling accurate KPI modeling.
- Enabled real-time scenario simulation by designing and validating digital twin data models for industrial applications.
- Delivered actionable insights faster by cleaning, transforming, and visualizing large datasets using Python.
- Prepared technical documentation, progress reports, and presentation materials that enhanced transparency and supported successful project reviews.
- Strengthened research credibility by publishing applied research on AI-driven decision automation and presenting findings to academic and industry audiences.
- Ensured 100% compliance with university standards by managing confidential student records and supporting course registrations.
- Increased student engagement by 20% by organizing academic events and workshops that enhanced departmental visibility.
- Streamlined communication and coordination between students and faculty by facilitating meetings and schedules.

IBM - Kyndryl

Dec 2021 - Dec 2022

Associate Technical Engineer

- Managed day-to-day operations of 5,000+ Linux and Unix servers, maintaining high availability and ensuring SLA compliance with company security and performance standards.
- Implemented automated monitoring and alerting using shell scripting and cron jobs, reducing incident response times by 30% and improving service reliability.
- Supported application deployments and infrastructure upgrades across production and staging environments, minimizing downtime through meticulous planning and rollback strategies.
- Resolved complex system and network issues in collaboration with cross-functional teams, achieving consistent root-cause resolutions and uninterrupted service continuity.
- Conducted system audits, patch management, and backup verifications to maintain data integrity, strengthen security, and meet compliance requirements.
- Created detailed configuration documentation, maintenance schedules, and troubleshooting guides, improving onboarding efficiency and operational consistency.
- Enhanced incident detection by analyzing performance metrics and logs to identify bottlenecks early, leading to proactive issue prevention.
- Developed reusable automation scripts to translate recurring operational needs into efficient workflows, significantly reducing backlog volumes.

- Lowered repeat incident rates by 15% through comprehensive root-cause analysis and implementation of long-term corrective actions.
- Improved infrastructure resilience and reduced unplanned downtime through proactive performance tuning and capacity planning using NMON analysis.

Oakspro Software Solutions

Web Developer Intern

Aug 2019 - Nov 2019

- Developed a data-driven e-commerce platform, integrating cloud deployment for improved transaction speed.
- Collaborated with cross-functional teams to transform business requirements into product features, enhancing user experience and increasing customer satisfaction

Projects

AI CCTV Footage Analyzer

- Designed a vision-in-the-loop pipeline (frame sampling 'Gemini 2.0 analysis' 'entity/description extraction' 'JSON logging) that turns hours of video into searchable, machine-readable events.

Profit Prediction Using Machine Learning

- Built a reusable machine learning pipeline to analyze financial data and predict profit using regression models and PyCaret, improving predictive accuracy by 97% and identifying key drivers of ROI across product segments.
- Delivered actionable business insights by analyzing the impact of discounts, sales channels, and product categories on profitability, enabling data-driven strategies for margin optimization.

Object and Motion Detection using Machine Learning

- Collected, cleaned and analyzed qualitative data using OpenCV, Pandas, Scikit-learn, to train a motion detection model with TensorFlow for accurate real-time object detection.
- This system, when applied to sports scenarios, reduced decision-making time by 18% through automated detection and analysis of key motion events.

Bankruptcy Prediction using Logistic Regression

- Developed a bankruptcy prediction model using logistic regression and ONNX.js, enabling real-time financial analysis through a web interface.
- Implemented key financial indicators such as Net Income to Total Assets, ROA, Debt Ratio, and more, to predict bankruptcy probability based on input data.

Education

Purdue University Northwest

Dec 2024

M.S., Computer and Information Technology

- **GPA:** 3.70/4.0
- **Coursework:** Machine Learning, Statistics, Quality Assurance, Database Management Systems, Information Assurance, Computer Networks, Project Management, Supply Chain Management, Data Analytics, Marketing Management

Certification

- **Oracle Cloud Data Management:** Oracle University
- **Google Project Management:** Coursera
- **Python:** Udemy
- **Azure Synapse Analytics:** Microsoft
- **Emotional Intelligence:** LinkedIn
- **GenAI powered data analytics:** Forage

Skills

- **Programming & Frameworks:** Python, JavaScript/TypeScript, Angular, Node.js
- **Database & Cloud:** Google Cloud Platform (Firebase, Big Query), MySQL, Render, AWS (EC2, S3 basics), Azure
- **DevOps & Automation:** CI/CD pipelines, Shell scripting, Cron jobs, Version control (Git)
- **Data Analytics:** Power BI, Tableau, SQL, Pandas, Excel
- **System Administration:** Linux/Unix environments, Performance tuning (NMON), Monitoring & security hardening
- **Product & Delivery Skills:** Requirements gathering, Product road-mapping, Agile/Scrum practices, Technical documentation (Jira, Confluence), User training & onboarding, Cross-functional collaboration
- **Soft Skills:** Strategic problem-solving, Attention to detail, Adaptability, Client communication, Process improvement, Leadership in small-team environments