

# HEMANT RAMPHUL

# **EMBEDDED AI & ROBOTICS ENGINEER | SOFTWARE ENGINEER**

14+ years of experience

"Develop thoughtful, efficient, and elegant solutions to interesting problems."

**3** 15 Jan 1987

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# ■ ABILITIES & PROFICIENCIES

#### **Professional**

- > Fluent in French & English.
- Effective organization and prioritization of workload.
- Quick adaptation to new techniques and technologies.
- Efficient working with minimum supervision.

#### **Personal**

- > Creative problem-solver with a strong imagination.
- Tactful communicator reliable and committed to excellence.
- Energetic team player with initiative and meticulous attention to detail.

## ACADEMIC QUALIFICATION

## Master in Artificial Intelligence and Robotics

Université des Mascareignes and Université de Limoges Rose-Hill, Mauritius (Nov 2021 - Dec 2024)

## **BSc (Hons) Software Engineering**

Université des Mascareignes and Université de Limoges Pamplemousses, Mauritius (Aug 2015 - Dec 2016)

## > Diploma in Information Systems specialize **Software Development**

Swami Dayanand Institute of Management Pamplemousses, Mauritius (Aug 2008 - Dec 2010)

#### CERTIFICATIONS

- Microsoft Certified Professional
- Microsoft Certified Solutions Developer: Web Applications
- MCSA: Web Applications
- > Android Certified Application Developer

# **≡** SKILLS

## **Programming Language**

- ▶ C# ▶ Java ▶ JavaScript ▶ Python ▶ PHP ▶ VB.Net ▶ TypeScript SOL
- > Framework, CMS, and Others
  - ▶ CodeIaniter ▶ Node1S ▶ WordPress Flutter Xamarin ▶ Git ▶ Visual Studio ▶ VSCode ▶ Agile ▶ REST/SOAP APIs ▶ Sencha ExtJs ▶ MATLAB

Jupyter

# ▶ Google Colab Software and OS

▶ Android Studio ▶ VSCode ▶ Eclipse ▶ Windows/Mac OS/Linux ▶ Visual Studio ▶ PvCharm

#### > AI and Robotics

- ▶ ML: Supervised, Unsupervised and Deep Learning
- ▶ Computer Vision: Image Processing, Object Detection
- ▶ Robotics: Robot Kinematics, Robot Simulation, SLAM
- ▶ NLP: Sentiment Analysis, NER, Text Classification
- ▶ Tools & Libraries: TensorFlow, OpenCV, Scikit-learn, Embedded Systems and IoT, PyTorch, Keras, U-Net, YOLO

## WORK EXPERIENCES

## **Embedded Artificial Intelligence & Robotics Engineer**

**LYNXDRONE** (Sept 2024 – Present)

- > Developed AI tools for analyzing structural issues in building inspections.
- Designed and implemented a data analytics platform to process, visualize, & manage inspection data, enhancing predictive maintenance capabilities.
- Automated detection of structural pathologies to support proactive maintenance.
- Optimized real-time data processing for on-site inspections on embedded systems.
- > Collaborated with teams to ensure AI solutions met industry standards for accuracy and reliability.

## **Senior Software Engineer**

FULLL (Jan 2024 - Aug 2024)

- > Develop and implement OCR and LAD algorithms, improving accuracy.
- > Use Node.js for backend development, React Native for cross-platform mobile apps, and Git for version control.
- Design, develop, and maintain UI and features for web and mobile applications.
- Communicate actively with teams via Slack and participate in technical discussions to support product development.
- > Stay updated on web technologies and create documentation for code, APIs, and system architecture.
- Create and maintain technical documentation for code, APIs, and system architecture.

## **Senior Software Engineer**

**CEGID** (Aug 2011 - Dec 2023)

- > Designed intuitive UI/UX interfaces and maintained application performance through bug fixes and enhancements.
- Collaborated on innovative ideas and integrated third-party libraries for seamless web and mobile functionality.
- > Developed and implemented new features for web and mobile applications, leveraging in-depth mobile architecture knowledge and emerging tech.
- Ensured seamless backend integration and optimized mobile experiences in fast-paced Agile/Scrum environments.
- Championed code quality with regular reviews, promoting best practices and contributing to detailed installation and maintenance documentation.

#### **PHP Developer**

## WEB COMPANIES (Feb 2011 - Aug 2011)

- > Designed & maintained dynamic websites & applications using PHP.
- > Produced clean, well-documented, and efficient PHP code.
- Collaborated with front-end developers for seamless user-facing elements.
- Played a key role in the maintenance of databases and servers.
- Utilized version control systems (Git) to manage and track changes in the codebase.

## **PHP Developer**

## **ESOKIA** (Aug 2010 - Jan 2011)

- > Created websites using Drupal CMS with PHP.
- Generated, maintained, and archived website content.
- > Added new features and resolved bugs for improved web applications.