PIERRE HENRI FRICOT

IMMERSIVE WEB CODING

PIERRE HENRI FRICOT

Since 2009

Pierre Henri Fricot is a distinguished expert in the field of emerging technologies, with a profound specialization in Yarn, React, Docker, WebXR, and TypeScript.

Since co-founding his company in 2009, Pierre Henri has been at the forefront of innovation, leveraging his deep understanding of software development and immersive web platforms to create cutting-edge solutions. His prowess in coding, combined with a visionary approach to virtual experiences, has positioned his company as a leader in the immersive learning and 3D training sector.

Core technology

Yarn, React, Docker, WebXR, TypeScript.

Pierre Henri's contributions extend beyond his technical achievements; he is a thought leader in the immersive technology space, continually exploring new frontiers in virtual experiences and interactive learning environments. His expertise not only drives the growth of his company but also contributes significantly to the advancement of the tech industry at large.

Awards

Renowned for his exceptional skill set, Pierre Henri's work has garnered significant accolades within the tech community.

Notably, he clinched the *first prize in the Facebook worldwide championship on XR collaboration, standing out among over 16,000 participants.*

This achievement highlights his exceptional ability to foster collaboration and innovation in the virtual space. Furthermore, his successes in various game jams and the availability of his work on GitHub underscore his commitment to open-source communities and collaborative development.

WORK

Pierre Henri FRICOT company since 2009

IDEMIA ENGINEERING SYSTEM

- Pierre Henri Fricot worked for IDEMIA as a Senior Specialist Engineer, where he honed his expertise in smart card architectures. He was instrumental in creating essential tools and advancing cryptographic and biometric capabilities within the field. Pierre Henri's active contribution to the AFNOR GE04 working group was notable, and he was the brain behind the development of a unique JavaCard security tool that set new standards in the industry.

- His innovative approach led to the development of speed control radars that employed neural networks for automatic license plate detection, showcasing his ability to integrate advanced technologies for practical applications. Pierre Henri's leadership in the development and architectural design of smart card applications was pivotal. He worked on a range of significant projects including Health Insurance Cards that met the IAS PREMIUM and Common Criteria EAL4+ standards, National Identity Cards adhering to the IAS ECC Standard and Common Criteria EAL5+, Passports conforming to eIDAS Standard and ICAO with Common Criteria EAL5+, Identification Tokens based on the FIDO Standard, and Transit Applications following the CALYPSO Standard.

IDEMIA ENGINEERING SYSTEM

- His role extended to authoring functional specifications and Common Criteria documents, demonstrating his proficiency in ensuring compliance and security standards. Pierre Henri's technical acumen was further evident in his development of tools for smart card technology utilizing Python and Java. He created Maven plugins, document generation tools, designed a CAP file parser, developed a JavaCard simulator, and established comprehensive unit tests for applications in Python and Java using JUnit.

- Pierre Henri also excelled in implementing integration tools and compilation pipelines utilizing Maven, Jenkins, and SonarQube, optimizing development workflows and ensuring code quality. His adoption of agile development practices, particularly the SCRUM methodology, facilitated effective teamwork and project management within his team of approximately ten individuals.

- Specializing in cryptographic techniques such as AES, DES, RSA, and ECC, as well as biometrics, Pierre Henri brought a depth of knowledge that was critical to the security aspects of his projects. His development of a tool for the automatic security of JavaCard applets stands as a testament to his innovative thinking and commitment to advancing the field of smart card technology and security.

EXPERT IN XR TECHNOLOGIES

Yarn, React, Docker, WebXR, TypeScript.

Yarn is a fast, reliable, and secure dependency management system that automates the process of installing, updating, and managing node.js packages. It caches every package it downloads, enabling quick retrieval and installation, thus significantly improving the efficiency of the development process. Yarn's deterministic algorithm ensures that the same dependencies will be installed in the same way across all machines, which enhances consistency and reduces bugs in projects.
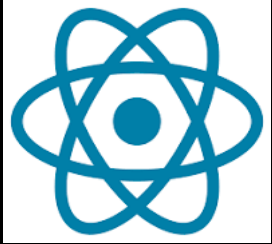
React is a declarative, efficient, and flexible JavaScript library for building user interfaces. It enables developers to create large web applications that can change data without reloading the page. React's core principle is the use of components – reusable pieces of code that dictate how a section of the UI should appear and behave. Its virtual DOM system optimizes updates to the real DOM, making the user experience smoother and more responsive.

Docker is a platform-as-a-service product that uses OS-level virtualization to deliver software in packages called containers. Containers are isolated from each other and bundle their own software, libraries, and configuration files; they can communicate with each other through well-defined channels. Docker provides an additional layer of abstraction and automation of operating-system-level virtualization on Windows and Linux, making the creation, deployment, and running of applications more efficient.

WebXR is an API that enables the creation of VR (Virtual Reality) and AR (Augmented Reality) experiences for the web. It's a unification of the WebVR and WebAR APIs, providing a more robust and versatile platform for immersive web experiences. WebXR makes it possible for developers to create immersive content accessible through a web browser, eliminating the need for standalone apps or specialized hardware, thus democratizing access to VR and AR experiences.


TypeScript is a strongly typed programming language that builds on JavaScript, giving you better tooling at any scale. It adds optional static typing to JavaScript, which can help detect errors early through a type system and rich IDE support. TypeScript is designed for development of large applications and transcompiles to JavaScript, making any existing JavaScript program also a TypeScript program.

A-Frame is an open-source web framework for building virtual reality (VR) experiences. It is based on top of HTML, making it easy for developers familiar with web development to create VR content. A-Frame allows the embedding of VR into websites and supports most VR headsets. It's entity-component-system architecture provides a declarative, extensible, and composable structure to three-dimensional scenes on the web.
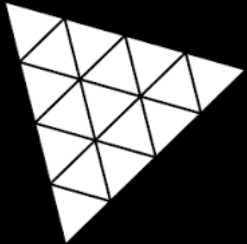
Three.js is a cross-browser JavaScript library and API used to create and display animated 3D computer graphics in a web browser using WebGL. It provides a simple yet powerful abstraction over WebGL, allowing developers to create intricate 3D scenes without the need for detailed WebGL knowledge. Three.js facilitates the visualization of 3D models, making it a popular choice for games, data visualization, and interactive animations on the web.