Mathieu Bertin

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I'm a one man army senior Typescript developer who uses any combination of Solidity, Nextjs, React, Nuxt, Vue, Nodejs, and PostgreSQL to build scalable, secure, and user-friendly web applications with over 8 years of experience in web development.

I have a background in computer programming from NBCC and psychology from Université de Moncton, which gives me a unique perspective on human-computer interaction and user experience design. I am fluent in English, French, and decent enough in Thai, and I enjoy working with tightly knit competitive teams. I am passionate about emerging technologies, especially blockchain and web3, and I constantly seek to improve my skills and knowledge in this fast-growing field. I hope to become an invaluable asset to your daily operations!

CORE COMPETENCIES/KEY SKILLS

Programming Languages: TypeScript, JavaScript, HTML, Solidity, CSS

Databases: PostgreSQL, MySQL, SQLite

Front End Web Frameworks: Next.js, Nuxt.Js, React, Astro, Vue.js

Server-Side Frameworks: Express.js, Nestjs, ElysiaJS

Cloud Services and Tools: Amazon Web Services, Docker (Software), Netlify, Vercel

Libraries RxJS, Web3.js, Lodash

State Management: XState, React Context API, Redux, Vuex

ORMs: Prisma, TypeORM, Drizzle, Objection

CMS: Contentful

Management Software: JIRA, Trello, Asana

API Design, Interfaces and Communications: REST, WebSockets, JSON-RPC, GraphQL

PROFESSIONAL EXPERIENCE

Metana Remote

Solidity Contract Development Bootcamp Student

Dec 2023 - Present

- Documented and shared insights on emerging blockchain technologies and personal learning experiences through a series of well-received articles on Medium.com that made it into the **Coinsbench** editorial followed by 650+ blockchain developers, enhancing community knowledge and engagement. Example: https://medium.com/coinsbench/modifying-evm-storage-to-seed-token-balances-in-testing-a6d58b596ceb
- Gained in-depth knowledge of Ethereum standards including ERC-20, ERC-721, ERC-1155, and their variants, alongside
 practical experience in token sales, marketplaces, and staking mechanisms.
- Developed proficiency in smart contract development tools and practices such as Hardhat, ethers.js, Metamask integration, unit and mutation testing, static analysis, and building front-end dApps

- Mastered security practices and vulnerability identification through extensive hacking exercises focusing on all forms of reentrancy, insecure randomness, bad access control, and other common vulnerabilities within smart contracts.
- Advanced Solidity skills acquired through a thorough exploration of OpenZeppelin, programming patterns, EVM deep dive, gas optimization, and building smart contracts in Yul and Assembly.
- Completed comprehensive capstone projects integrating Chainlink oracles, explored DeFi protocols and their associated security challenges, and developed a deep understanding of smart contract upgrade patterns, cross-chain techniques, and Layer 2 solutions.

XX Network Remote

Vuejs/React/Express Full Stack Web Developer

Apr 2019 - Aug 2023

- Designed a website integrated with Contentful CMS in Nuxt.js (Vue.js), enabling the marketing team to maintain consistent branding while posting promotional content.
- Engineered a dashboard using Nuxt.js (Vue.js), Express, and PostgreSQL to display performance metrics based on a database of approximately 200 million rounds.
- Provided 150+ node operators with essential support and comprehensive performance insights: https://dashboard.xx.network/
- Adapted existing open-source software written in Typescript/React to meet the unique requirements of the company's network.
- Developed software allowing 300+ end-users to interact with the product, enabling them to utilize the company's financial services: https://wallet.xx.network/
- Created a messenger application using Typescript/React and in-house library XXDK, expanding access to private messaging and group chats for 500+ users: https://github.com/xxfoundation/elixxir-speakeasy-web/tree/dev

Nephelo Software (Sole Proprietorship)

Remote

Laravel/Express/Vue.js Full Stack Developer

Jul 2017 - Apr 2019

- Enhanced system stability by 45% through comprehensive codebase and PostgreSQL database refactoring using Laravel and Vue.js.
- Diversified the range of financial products and services offered by the client, scaling from 3 to 20+, and ensuring smooth operations.
- Developed Express.js module to automate the purchase and sale of financial products and facilitate the addition of products to the site via a secure admin web portal, reducing the time required from weeks to a few minutes.

Garago Software Inc.

New Brunswick, Canada

ColdFusion/jQuery Full Stack Web Developer

Jun 2016 - Jul 2017

- Streamlined and managed a large cluttered codebase, resulting in a 30-40% reduction in the overall code volume, thereby accelerating development processes by 35%.
- Implemented source control practices for the codebase, enhancing collaboration and facilitating the onboarding of 20+ developers.
- Revamped and redesigned the front-end interface to provide a modern look and feel, leveraging Bootstrap 3, and simplified user flows to enhance user experience (UX) by 27%.
- Empowered 100+ clients to generate dynamic documents based on their end-user responses by creating a templated document service that utilizes a Rich Text Formatter.

Butterfly Energy Systems

New Brunswick, Canada

C++ Software Developer

Sep 2015 - Jun 2016

• Initiated and executed a comprehensive suite of unit tests, enabling the lead programmer to identify and rectify multiple product issues, ultimately enhancing stability by 15%.

IGT Urquhart

<u>Intern</u> <u>Apr 2015 - Jun 2015</u>

• Transformed and redesigned a legacy game to a more modern framework utilizing Unity 3.5 and a custom C# SDK.

ADDITIONAL WORK EXPERIENCE

• Junior Programmer, NovuTech

Jul 2015 - Sep 2015

EDUCATION

New Brunswick Community College (NBCC)

New Brunswick, Canada

Gaming Experience Development, Computer Programming

2013 - 2015

Université de Moncton

New Brunswick, Canada

Bachelors - Psychology

<u>2005 - 2010</u>

OTHER

Interests: Gaming (7x a week), Badminton (2x a week)

Languages: English (Native), French (Native), Thai (Fluent)