

Jean Duquenne

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Empathic and results-driven software engineer with a focus on crafting practical, efficient solutions and delivering user-centric software experiences that meet both business objectives and end-user needs.

Skills

- TypeScript | Python 3 | C# | JavaScript | C | C++ | HTML | CSS | Latex | Java | NoSQL | MySQL | PostgreSQL
- Node | Express | React | Next.js | Remix | Redux | Git | GraphQL | Rest API | Docker | Vite | Tailwind | Webpack | OpenCV | Keras
- Google cloud | CI/CD | Vercel | Jest | Firebase | Unit Testing | Unity 3D | VR | Pandas | FastAPI | Django | Figma | Photoshop
- Microservices | Distributed Systems | Frontend | Backend | Full-Stack | Experimental designs | Agile | English | French

Experience

Independent Software Engineer [Flagstonelab](#) *Geneva, Switzerland* **11/2023 - Current**

- Implemented fully customizable and optimized lightweight Shopify theme app extensions, delivered to high-traffic Shopify stores through CDN with no performance impact. (Webpack, Liquid, GraphQL)
- Developed a variety of optimized, responsive, and accessible widgets, such as carousels, masonry grids, modals, floating widgets, and more, ensuring they provide excellent display on all devices and screen sizes. (CSS, UX, Accessibility)
- Implemented scalable data pipelines utilizing web scraping techniques and diverse APIs with Google Cloud services.

CTO Full-stack Developer [Qwestive - Binance Lab](#) *Remote / Paris, France* **11/2021 - 11/2023**

- Led the design and development of three web applications with thousands of daily users. (Agile, Full-stack, Entrepreneurship)
- Won hackathons for best product, incubation by Binance and Google startups program. (web3, EVM, Solana, UX)
- Implemented advanced features and complex user flows, including data pipelines with smart-contract tracking, multisig transactions, embedded tracking scripts, APIs, form builders, token gating, analytic dashboards, and more. (Typescript, React, Web3, CI/CD, DevOps)
- Led the development, rapidly architecting solutions and implementing them while ensuring the codebase remains readable, clean, modular, and easily maintainable. (System Architecture, Distributed Systems, Cloud Computing, Database Design)
- Maintained optimal developer environment and documentation, enabling next-day updates based on customer requests.
- Continuous Integration/Deployment Pipeline Integration, pull requests, code reviews, load/stress testing, unit/integration/e2e testing.

Computer Vision Research Engineer [Logitech](#) *Lausanne, Switzerland* **08/2020 - 05/2021**

- Developed VR applications in Unity to measure and test the ergonomics of various input modalities, significantly aiding Logitech in the measurement, comparison, and improvement of their stylus. (VR, Unity, UX, C#, Experimental designs)
- Designed and conducted user experiments on VR input modalities, adapting ISO 9241-411 and Fitts law for 3D interactions.
- Researched and developed virtual keyboards, including surface-aligned designs and models with integrated hardware components.
- Integrated hand tracking into Logitech's virtual meeting VR app with full functionality using hand gestures. (CI/CD, Production app)

Software Engineer Intern [SquareFactory](#) *Lonay, Switzerland* **02/2020 - 08/2020**

- Exoskeleton simulation and actuation:** Significantly improved natural movement simulation by implementing and actuating the exoskeleton in OpenSim. Optimized actuation for typical muscle weaknesses using CMAES. (C++, 3d modeling)

Machine Learning Engineer Intern [Bionomous](#) *Fribourg, Switzerland* **09/2019 - 02/2020**

- Miniature biological entities classification:** Increased accuracy from 90% to nearly 100% by transitioning from a Gaussian mixture model to a deep learning convolutional neural network. (Python, Keras, Tensorflow)

Education

Master Robotics / Machine Learning [EPFL](#) *Lausanne, Switzerland* **09/2018 - 06/2021**

Bachelor in Microengineering [EPFL](#) *Lausanne, Switzerland* **09/2015 - 09/2018**

Google UX Design Certificate (2023), 4 web development and data science related online courses.

Baccalauréat Scientific [CDL International School](#) *Versoix, Switzerland* **- 09/2015**

Projects

- SOLSPONSOR:** Developed a platform similar to Patreon, integrating Solana transactions and NFTs. [Link to presentation](#) 2021
- E-COMMERCE:** Created fully automated e-commerce stores using diverse Python scripts, generating over \$400k in revenues since 2020.
- STRESS DETECTOR:** Engineered a stress detector wearable device measuring HRV, BPM, and shaking, providing live feedback. (2019)
- EYESIT:** Created Tensorflow-powered wearable camera alerting visually impaired users of obstacles in real-time. (2019)

Work Qualities

Excels in producing reliable software designs with rapid development cycles, adept at cooperation, conflict resolution, information comprehension, thriving in fast-paced environments, going the extra mile in code reviews, and exceptional problem-solving.