# Jean Duquenne

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Empathetic and results-driven software engineer dedicated to developing practical, efficient solutions and delivering user-centric software experiences that align with business objectives and exceed end-user expectations.

### Skills \_

- TypeScript | Python 3 | C# | C++ | JavaScript | HTML | CSS | Latex | NoSQL | MySQL | PostgreSQL | Node | OOP
- Machine Learning | Unity 3D | React | Express | Next.js | Git | GraphQL | Rest API | Docker | Tailwind | OpenCV | Keras
- Google cloud | CI/CD | Vercel | Jest | Firebase | Unit Testing | VR | Pandas | Django | Figma | Oculus SDK | Deep Learning
- Microservices | Distributed Systems | Frontend | Backend | Full-Stack | Design of experiments | Agile | English | French | Spanish

### Experience \_

#### Software Engineer Independent 11/2023 - 09/2024 Geneva, Switzerland • Developed lightweight Shopify theme app extensions and Bubble.io widgets, delivered to 1000+ high-traffic websites via CDN with excellent performance. Built 20+ optimized widgets and multiple data-intensive applications. Created scalable data pipelines using various APIs, leveraging Google Cloud services. (GCP, Data Pipelines) **CTO**, Software Engineer **<u>Qwestive - Binance Lab</u>** Remote / Paris, France 11/2021 - 11/2023 • Designed and developed 3 award-winning applications, selected among 700+ startups for incubation by Binance and Google Startups. Grew user base to 50,000+, winning the BitDAO hackathon (\$12.5k prize). Iterated towards Product-Market Fit, implementing 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, CI/CD, DevOps, UX, web3, EVM, Solana) • Led development with rapid cycles, ensuring a clean, modular, and maintainable codebase. Continuous Integration/Deployment Pipeline Integration, pull requests, code reviews, load/stress testing, unit/integration/e2e testing. 08/2020 - 05/2021 **Computer Vision Research Engineer Logitech** Lausanne , Switzerland 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#, Design of experiments DOE) 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. Software Engineer Intern SquareFactory Lonay, Switzerland 02/2020 - 08/2020 Implemented an exoskeleton in a biomechanically accurate simulator. Applied CMA-ES for actuator optimization, achieving a realistic gait and addressing muscle weaknesses. (Python, C++, 3d modeling) **Machine Learning Engineer Intern** Fribourg, Switzerland 09/2019 - 02/2020 **Bionomous** Enhanced classification accuracy of miniature biological entities from 90% to nearly 100% by shifting from a Gaussian mixture model to a deep learning framework. (Python, Keras, TensorFlow) Developed a classification framework using convolutional neural networks (CNNs), ensuring reliable performance on an Android device. Education \_ **Master of Science Robotics and Machine Learning** Swiss Federal Institute of Technology, EPFL 09/2018 - 06/2021 **Bachelor of Science in Microengineering** Swiss Federal Institute of Technology, EPFL 09/2015 - 09/2018 Google UX Design Certificate (2023); 4 web development and data science-related online courses. **Baccalauréat Scientific** CDL International School - 09/2015 **Projects** • BUILD BUDDY: Developed an assembly instruction VR app for Oculus Quest, presented at AWE USA 2024. • SOLSPONSOR: Developed a platform similar to Patreon, integrating Solana transactions and NFTs. 2021 • E-COMMERCE: Created fully automated e-commerce stores using diverse Python scripts, generating over \$1M 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

Moving quickly and confidently, I excel in collaboration, conflict resolution, and rapid software development cycles. I'm dedicated to going the extra mile and possess great problem-solving abilities. Outside of work, I enjoy running, DnD, VR, cooking, and being a health nut.