

# Joseph-Emmanuel Banzio

+33 6 18 86 11 82 | [hi@jbanzio.com](mailto:hi@jbanzio.com) | [github.com/jbnzi0](https://github.com/jbnzi0)

## WORK EXPERIENCE

---

### Software Engineer — Contentsquare

Oct. 2021 – Present

*Node.js, TypeScript, NestJS, Kafka, PostgreSQL, Vue.js, AWS, Kubernetes*

*Paris, France*

- Revamped the Alerting platform microservices to address critical functionality and scalability issues achieving 99.9% operational uptime and regaining customer trust
- Developed a robust JSON-based templating system to integrate new channels such as Slack and Microsoft Teams into the Notification system (wrote a blog post available [here](#))
- Built real-time capabilities into the Alerting platform by expanding the notification microservice to be high-throughput and reliable, enabling users to receive notifications on critical error metrics instantly
- Offloaded heavy CPU-consuming tasks and optimized notification storage to drastically improve the response time of critical endpoints and meet SLAs using Kafka and Redis
- Developed an observability tool that consumes and stores AWS SES email events in real-time, allowing teams to quickly troubleshoot email-related issues using AWS SNS, SQS, and Kafka
- Enhanced the team observability's workflow by setting up Prometheus alerts and building Grafana dashboards allowing fast incident identification and resolution
- Developed a Chrome extension and microservices for data labeling, handling authentication, and IP whitelisting, used by an external company to identify website zones for ML algorithm training

### Software Engineer Intern — Dassault Systèmes

Feb. – Aug. 2021

*Python, PySpark, HDFS, Raspberry Pi*

*Vélizy-Villacoublay, France*

- Configured IoT devices to collect and ingest air quality data from Enviro sensors into a Semantic Data Lake in real-time
- Developed a data pipeline to scrape and ingest more than 2M datasets from Luftdaten and Opendatasoft into a Semantic Data Lake for training forecasting algorithms to predict air quality using Python and PySpark

### Software Engineer — Swap Pay

Mar. 2020 – Aug. 2021

*Node.js, Express, MongoDB, Docker, AWS Beanstalk, Stripe*

*Taipei, Taiwan*

- Designed, developed, and deployed core backend features for a QR mobile payment solution and a web-based point-of-sale for restaurants

## EDUCATION

---

### Ecole Supérieure d'Informatique, Electronique et Automatique

Sep. 2018 – Aug. 2021

*MSc. Computer Science, Minor in Big Data*

*Paris, France*

### Tamkang University

Feb. – June 2020

*MSc. Computer Science (Exchange Semester)*

*Taipei, Taiwan*

### Université Paris Sorbonne Nord

Sept. 2016 – Aug. 2018

*Associate's in Computer Science*

*Paris, France*

## PROJECTS

---

### Trybe | *Node.js, Go, NestJS, TypeScript, Docker, Redis, PostgreSQL*

Feb. 2022 – Present

- *Developed a geolocation-based event discovery feature using PostGIS, significantly improving user experience*
- Implemented a matching and connection feature, similar to dating apps, allowing users to connect at events
- Built a data pipeline that fetches, processes, and ingests data from multiple event platforms into a Postgres database with Go
- Implemented GCP cloud functions for real-time push notifications using Go and Firebase Cloud Messaging

### Beepicture | *Python, Google Colab, Node.js, Express*

Sep. 2020 – Feb 2021

- Implemented advanced deep learning models to automate the process of identifying pollen cells on micrographs

## SKILLS

---

**Speaking:** French (native), English, Spanish, Mandarin

**Languages:** Python, TypeScript, JavaScript, Go, Java, Bash, C

**Tools:** Node.js, Kafka, NestJS, PostgreSQL, Firebase, Redis, MongoDB

**DevOps:** Docker, Kubernetes, GitHub Actions, Jenkins, Terraform