RÉMI HÉNEAULT

Backend Developer

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ABOUT ME

Developer from Paris specialised in Python back-end programming. Open-source believer and contributor, cybersecurity enthusiast with experience in SaaS development, machine learning, concurrency and shared computing. Familiar with Agile project management.

SKILLS OVERVIEW

Sys. admin DevOps Python SaaS ML
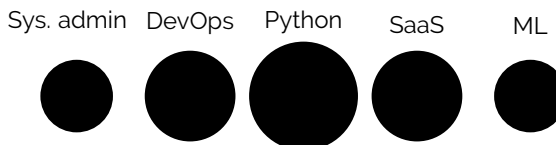
PERSONAL PROJECT

2025 **Transit.sh**

Creator and maintainer of an open source real-time file transfer service.

- Leveraging FastAPI's modern ASGI implementation to enable multiple simultaneous transfers at uncapped speeds with minimal system overhead (less than 20% CPU with only 2GB RAM)
- Architected a horizontally-scalable data chunk forwarding architecture using Redis
- Developed an event system for synchronisation using a Pub/Sub pattern to prevent race conditions
- Built a WebSocket-based upload client with JavaScript, featuring drag-and-drop interface, real-time progress bars, disconnection detection, error management and exception tracking with Sentry
- Implemented human-readable temporary link generation system with expiration time

```
FastAPI  /  Redis  /  WebSockets
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EXPERIENCE

sept. 2023
april 2024

Full-stack developer (freelance)   **Delphlyx.io**

Design, development and delivery of a reporting platform for football clubs in developing countries.

- Created responsive data visualization dashboard for teams using Streamlit, with player database, performance metrics, match results and basic analytics
- Engineered an upload system for very large video files running in a different FastAPI worker to avoid overloading the main app, with files deposited into an S3 bucket
- Stored player information and match results as objects on a Firestore NoSQL database
- Designed an admin interface for staff, with overview of the database and status tracking (match created, video uploaded, requires attention etc.)
- Implemented a simple session-based authentication system with different roles, isolation and cooldowns to prevent brute-force attacks

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FastAPI  /  Streamlit  /  Firestore  /  S3  /  GCP
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nov. 2019
june 2023

Backend developer   **Ignition Program**

Development of an HR SaaS product serving 20k+ candidates and 500+ companies (team of 6).

- Collaborating with the Product team to design, spec and produce an MVP.
  Worked through the full project lifecycle: from initial concept to production, then improvements roadmap
- Writing technical specs with front-end devs to ensure the API layout is coherent, efficient and easy to use
- Building the Django REST backend, implementing data validation, serialization, pagination, and caching strategies to serve optimized data payloads to multiple frontend applications

Built complete backend infrastructure for candidate mobile app with 1k daily active users.

- Assisted the front-end in building a multi-step onboarding process by implementing: email verification with Jinja, CV upload to S3, interview scheduling with Calendly and notifications with Celery
- Built a sponsoring system using M2M database relations for candidate retention
- Wrote a internal library to centralise logic, models and periodic tasks to avoid duplication

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Developed recruiter dashboard backend achieving 9+/10 customer satisfaction score.
- Implemented candidate matching algorithm using weighted scoring system based on skills, experience, salary expectations, location and industry preferences
- Built candidate suggestion system and automated interview scheduling integration
- Developed "hide from company" privacy feature allowing candidates to remain anonymous from specific employers while staying visible to others, or vice versa

Led infrastructure modernization and CI/CD implementation.
- Writing unit and integration tests and automating checks using GitHub Actions
- Maintained Infrastructure-as-Code setup with Ansible playbooks and Docker containerization
- Implemented monitoring tools such as Sentry, Uptime and Flower (Celery)

Architected secure SSO implementation handling 1,000+ daily logins.
- Integrated OAuth2 authentication with Google and LinkedIn APIs, implementing secure token management and refresh logic
- Developed a "login as" feature for staff, allowing direct assistance to clients if needed

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Django REST  /  PostgreSQL  /  Celery  /  Ansible  /  AWS
```

sep. 2018
jun. 2019

Backend developer   La Relève

Developed a serverless ETL microservice to process HR records from multiple client systems.
- Built nearly cost-free serverless solution using AWS Lambda with wake-up events for updates
- Implemented data validation and transformation pipelines supporting multiple input formats from three HR providers: Zoho, HubSpot, government agency
- Designed system using SQS to queue updates for periodic DB ingestion

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Django  /  AWS Lambda  /  SQS  /  CloudWatch
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EDUCATION

sep. 2015
jun. 2017

Mathematics and Computer Science   Université Pierre et Marie Curie

Advanced coursework in applied mathematics, algorithms, and computational physics.
- Developed physics simulation engines in C++ focusing on particle systems, collision detection, and real-time rendering optimization
- Led team project on cellular automata, creating a zero-player game (very old code!) with emergent behavior patterns
- Completed advanced coursework in linear algebra, physics, and programming

LANGUAGES

French - native
English - fluent
Spanish - rudimentary

OTHER PROJECTS

Image deblocking CNNs
macOS security research
Asyncio queue library

NOTIONS

JS, CSS
C++, ASM
LaTeX

MISC

Avalanche rescue cert.
Driving license
Allowed to work: UK EU

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