

# Alexander Hoffmann

Passionate Software Engineer with Infrastructure expertise.

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## EDUCATION

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- **ECE Paris** France  
*Engineering Degree in Computer Science* 2016 – 2021
- **University of California San Diego** San Diego, USA  
*Extension program in Computer Science and Engineering* 2018

## PROFESSIONAL EXPERIENCE

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- **Société Générale** Paris, France  
*Software Engineer* 2021 – Present
  - Full-time software engineer in the Société Générale advanced development team on LUCID project.
  - Building a REST API to programmatically manage Hadoop clusters. It provides configuration and service lifecycle management, service health metrics, and setting up high availability and decommissioning.
  - Working on SSO integration, clustering interface support, and appliance stack management.
- **Hoffmann ai** Paris, France  
*Founder & Tech Lead* 2020 – Present
  - **Spotmydive** Write client-side code (GatsbyJS) for web-based high-volume production application (120,000 unique visitors/mo). Improve conversion rate and overall SEO by 20%.
  - **Orange** Design, create and maintain a scalable web-based dashboard application using TypeScript and MongoDB for back-end and ReactJS for front-end. Reduce customer acquisition cost by 5%.
  - **GEFCO** Design, develop, test, deploy, maintain and improve front-end (ReactJS) and back-end (C#) for highly available web application. Improve work performance and productivity by 10%.
- **Sadnacaya GmbH & Co. KG** Düsseldorf, Germany  
*Software Developer* 2018 – 2021
  - Contributed to a wide variety of projects using natural language processing, artificial intelligence, data compression and search technologies.
  - Configured a Manjaro VM onto a QNAP NAS to automatically back up mission-critical data on Write-Once-Read-Many archive storage.
  - Provided advanced corporate network infrastructure and server support.
- **Adaltas** Paris, France  
*Software Engineering Intern* 2020
  - Contributed to an open-source provisioning, configuration management, and application-deployment software enabling infrastructure as code.
  - Worked on scalability issues involving access to data and information.
- **Préfecture de police de Paris** Paris, France  
*Software Development Intern* 2019
  - Developed a Java application to control backups and automatically notify system administrators.
  - Implemented features to internal web applications to meet user demands and improve overall performance.
- **Ayacandas GmbH** Düsseldorf, Germany  
*Software Tester* 2017 – 2018
  - Development of an online exchange platform for hospitals and other medical institutions.
  - Worked on quality control of the system to ensure that the software solution meets the requirements.
  - Performed analysis of the anomalies and documented progress report on the testing campaign.

## ACADEMIC EXPERIENCE

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- **Digital Competence Instructor** Bonn, Germany  
*Deutsche Telekom* 2021
  - Research and coursework towards a technical certification with a focus on the Web.
  - Taught Programming Languages and Network Security in the context of Web development.
- **Associate Professor of Computer Science** Paris, France  
*ECE Paris* 2020 – 2021
  - Graduate student instructor for advanced undergraduate computer science courses.
  - Shared responsibility for leading sections, developing coursework including homeworks and projects.

## VOLUNTEERING

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- **President & Founder** Paris, France  
2021 – Present  
*Les Voiles Françaises - sailing club*
  - Organized and participated in committee meetings and club activities, as needed.
  - Developed budget of the club and managed its budgeting affairs, efficiently.
- **Treasurer** Paris, France  
2019 – 2021  
*Genius Campus Eiffel - entrepreneurship club*
  - Oversaw and presented budgets, accounts and financial statements to the management committee.

## OPEN SOURCE PERSONAL PROJECTS

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- **Wava (Java)** [github] : Collection of general-purpose utility classes with wide applicability.
  - Created static methods that operate on or return hash-maps.
  - Implemented unit tests using JUnit.
  - Continuous integration using Travis CI.
- **Docsight (Python)** [github] : A tool for analyzing scanned files and export their content.
  - Used OpenCV to remove noise and clean up image.
  - Implemented Tesseract OCR to recognize text from image.
  - Exported content as JSON, could easily be exported to a NoSQL database.
- **School Management Tool (Java Spring)** [github] : A web-based, extensible platform for managing schools.
  - Used Hibernate to implement a relational database.
  - Created a dynamic search engine using Elasticsearch.
  - Deployed web application to AWS.
- **Ecezon (PHP Laravel)** [github] : A free, open-source e-commerce platform written in PHP based on Laravel.
  - Implemented online payments with Stripe.
  - Created dynamic search engine using Algolia.
  - Deployed web application to Heroku.
- **Mini Router (C/C++)** [github] : Simple router given a static network topology and routing table.
  - Created a simple router given a static network topology and routing table.
  - Implemented ping and traceroute to and through the router.
  - Handled various Ethernet packets including ARP, TCP/UDP, HTTP and ICMP.

## OPEN SOURCE CONTRIBUTIONS

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- **Node.js Nikita (CoffeeScript)** [github] : Automation and deployment solution with Node.js.
  - Migrated and refactored low level functions of the core engine.
  - Implemented unit tests to ensure functioning of actions both locally and remotely (via ssh).
  - Created Docker containers to ensure tests are executed in a proper Linux-based environment.

## TECHNICAL SKILLS

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- **Languages (alphabetically)** : C, C++, Java, JavaScript,  $\text{\LaTeX}$ , Markdown, Python.
- **Big Data & Analytics** : Ambari, Elasticsearch, Hadoop Stack.
- **Databases** : MongoDB, MySQL, PostgreSQL.
- **DevOps & InfraOps** : Ansible, Docker, Git, Kubernetes, Maven, Unix, Vagrant.
- **Web technologies** : AWS, CSS, HTML, Java Spring, NodeJS, ReactJS, Shopify, Wordpress.
- **Other Software & Technologies** : Computer vision, googling, networking, vim, virtualization.

## SKILLS & INTERESTS

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- **Languages** : French (mother tongue), German (mother tongue), English (fluent), Spanish (notions).
- **Actuarial science** : applying mathematical and statistical methods to assess risk in finance.
- **Chess** : Ranked approx. 1600 elo.
- **Athletics** : 2018 vice-champ in 100-metre dash, third place in triple jump at the regional level (Île-de-France).
- **Sailing** : seaman with a track record of successfully operating and supervising boating excursions.