

# Alexander Hoffmann

Looking for a software engineering position or freelance contract

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## EDUCATION

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- **ECE Paris** France  
*Master of Science in Computer Science* Sept 2016 – Sept 2021 (Expected)
- **University of California San Diego** CA, USA  
*Extension program in Computer Science and Engineering* Sept 2018 – Dec 2018

## EXPERIENCE

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- **Assistant professor of Computer Science** Paris, France  
*ECE Paris* Aug 2020 - Present
  - Teach and supervise two classes of 35 undergraduate students in C and C++.
- **Software Developer** Paris, France  
*Freelance* April 2020 - Present
  - Write server-side code for web-based high-volume production application (120,000 unique visitors/mo).
  - Design, develop, test, deploy, maintain and improve software.
- **Junior Software Developer** Düsseldorf, Germany  
*Sadnacaya GmbH & Co. KG* Aug 2018 - Present
  - Contribute to a wide variety of projects using natural language processing, artificial intelligence, data compression, machine learning and search technologies.
  - Configuration of a Manjaro VM onto a QNAP NAS to automatically back up mission-critical data on Write-Once-Read-Many archive storage.
  - Provide advanced corporate network infrastructure and server support.
- **Software Engineering Intern** Paris, France  
*Adaltas* April 2020 - Sept 2020
  - Research, conceive and develop software applications to extend and improve on Adaltas' product offering.
  - Contribute to DevOps processes and the requirements of producing and operating a machine learning model.
  - Collaborate on scalability issues involving access to data and information.
- **Software Developer Intern** Paris, France  
*Préfecture de police de Paris* Jul 2019 - Aug 2019
  - Development of a Java application to control backups and automatically notify system administrators.
  - Implement new features to local web applications to meet user demands and improve overall performance.
- **Assistant IT Administrator** Düsseldorf, Germany  
*Baum Reiter & Kollegen* July 2018 - Aug 2018
  - Participation in the creation and automation of complaints.
  - Assistance and advice of users on site.
  - Supervision of cloud platforms.
- **Software Tester** Düsseldorf, Germany  
*Ayacandas GmbH* May 2017 - June 2018
  - Development of an exchange platform for hospitals and other medical institutions.
  - Quality control of the system to ensure that the software solution developed meets the requirements.
  - Analysis of the anomalies, documentation of the tests carried out and progress report on the test campaign.
- **Student Trainee in IT Services** Mohneim, Germany  
*Sinell EDV Zubehör GmbH* Jan 2018 - Feb 2018
  - Observation in the design, installation and maintenance of high-end firewall, client-server and VPN solutions.
  - Repairs on laptops / PCs / server systems.
  - Networking of high-end printers.
  - Mission as Computer Maintenance Technician at the Cologne Hospital.

## VOLUNTEERING

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- **Treasurer** Paris, France  
*Genius Campus Eiffel - entrepreneurship club* Apr 2019 - Present
  - Overseeing and presenting 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 development 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.
- **gatsby-theme-catalyst (ReactJS)** [github] : Themes and starters to accelerate development with GatsbyJS.
  - Improved post footer styles and format in blog themes.

## WEB DEVELOPMENT PROJECTS

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- **Tuteur à l'heure (ReactJS)** [website] : Home tutoring startup.
- **Genius Eiffel (Wordpress)** [website] : Entrepreneurship club at the Eiffel Campus (Paris).
- **Spotmydive (ReactJS & Wordpress)** [website] : News and magazine on the underwater world.
- **Machine Break (Gulp)** [website] : Self-service retailer specialized in coffee and convenience foods in the workplace and public spaces.
- **Personal Portfolio (ReactJS)** [website] : Compilation that exemplifies my skills, education and experiences.

## TECHNICAL SKILLS

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- **Languages (alphabetically)** : C, C++, HTML/CSS, Java, JavaScript,  $\text{\LaTeX}$ , Markdown, ReactJS, SQL.
- **OS** : Unix, Microsoft Windows.
- **Software & Technology** : AWS, Computer Vision, Databases (SQL & NoSQL), DevOps, Elasticsearch, Git, Hibernate, Maven, Networking, NodeJS, OpenCV, vim, Virtualization, Web Technologies, Wordpress.

## 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.
- **Sports** : athletics, cycling, sailing.