EMILE LE GALLIC

💻 emile.le-gallic.com ✉ emile@le-gallic.com 🔗 linkedin.com/in/emile-le-gallic ⬡ github.com/Minifixio

I am actively seeking an internship opportunity in Europe for the summer of 2024. My interests and expertise lie in software development, cloud computing, distributed systems, data applications, and artificial intelligence. With a solid foundation in Computer Science and programming, I am enthusiastic about contributing my skills and knowledge to a dynamic work environment while continuing to learn and grow. I'm fluent in English.

Education

MSc in Computer Science - GPA 4.0 **Sep. 2022 – July 2025**
2nd ranked engineering school in France *Télécom Paris - Institut Polytechnique de Paris*

Preparatory classes "Classes préparatoires aux Grandes Écoles" - GPA 4.0 **Sep. 2020 – July 2022**
2 years of intensive math, physics and computer science *Lyée Pierre de Fermat, Toulouse*

Baccalaureate in Sciences **Sep. 2017 – July 2020**
Upper-secondary school degree. Highest honors (achieved 20/20 in the French Baccalaureate) *Lyée Stéphane Hessel, Toulouse*

Relevant Coursework

- Data Structures
- Software Methodology
- Database Management
- Machine learning
- Computer Networks
- Computer Architecture
- Computer Graphics
- Data Science

Technical Skills

Languages: Python, Java, TypeScript, C/C++, HTML/CSS, JavaScript, SQL, OCaml
Developer Tools: Linux, VS Code, Eclipse, Android Studio, DataGrip, Qt Creator
Technologies/Frameworks: NodeJS, ExpressJS, Django, Scipy, Docker, MariaDB, MongoDB, neo4j, PostgreSQL, Angular, React, React Native, VueJS, Ionic, Qt, Jupyter, Git, WordPress

Experience

SEDOO (CNRS) **July 2023 – August 2023**
Software Engineer Intern *Toulouse, France*

- Developed a web interface for researchers to showcase metadata of their research data, including customizable query forms, enhancing user experience.
- Designed and implemented a robust backend service to manage data requests, automated email notifications to researchers, and facilitated seamless data uploads via FTP.
- Implemented an automated file management system, ensuring efficient storage and automatic removal of files to maintain data integrity.
- ***Techs :*** *VueJS, Java, Java Swing*

School's Junior Enterprise **2022 - 2023**
Freelance software engineer, serving professional clients *Paris, France*

- Developed a web application for organic waste retrieval, featuring data visualization through graphs and maps, with user role-based access management. Used Angular, Leaflet, and Plotly for the front-end.
- Contributed to a startup's sleep apnea analysis solution, integrating Python data processing scripts into an Django-based application for user-submitted raw data. Employed tools for temporal data visualization and health metrics analysis with Plotly.
- ***Techs :*** *Python, Django, Angular, Pandas, Plotly, Docker*

Highlit **February 2020 – October 2020**
Founder and principal developer *Toulouse, France*

- A web application that automatically downloads, processes, and analyzes demo files of professional esports matches in Counter-Strike: Global Offensive (CS:GO).
- It extracts essential gameplay actions, correlates them with the corresponding Twitch streams, streamlining gameplay analysis, enhancing esports data insights, and enabling users to review the most significant highlights and navigate through the best match actions using a video player.
- ***Techs :*** *NodeJS, Angular, Docker*

Relevant projects / Research work

Paris catacombs LiDAR scan and visualization app | *ThreeJS, Vite, CloudCompare* **June 2023**

- Collaborated on a group project for 3D visualization within a web application, reconstructing the Paris Catacombs using LiDAR scans collected via an iPhone and subsequent data processing.
- Designed and created the entire 3D visualization webapp
- Links : https://emile.le-gallic.com/catacombs/ | https://github.com/Minifixio/catacombs-scan

Research project in computational geometry | *Python* **November 2021 - May 2022**

- Aimed at optimizing the arrangement of toxic product silos on agricultural land, employing techniques including Voronoi diagrams and the Fortune algorithm.
- Conducted an extensive review of the current state-of-the-art literature, including reading relevant research papers, to inform and address the research objectives effectively.
- Link : https://github.com/Minifixio/TIPE_2021

Virtual classroom assistant | *Python, NodeJS, Puppeteer, Selenium, Angular* **May 2020**
- During lockdown, I created a BOT that could control a virtual user within the virtual classroom environment allowing users to perform tasks within the chat that were not natively supported by the app, such as drawing figures, using translation and maths tools, playing sounds or recordings...
- Implemented a web interface for controlling the BOT, which could be deployed locally.
- Link : https://github.com/Minifixio/blackboard-collab-bot

Co-Emplettes App | *React Native, TypeScript, MariaDB* **November 2022 - May 2023**
- One year group project on a mobile app facilitating campus-based group shopping coordination for students.
- Developed the whole mobile application using React Native
- Led backend development, creating API routes, implementing OAuth authentication from scratch with tokens, integrating MariaDB, and deploying on a remote server.
- Link : https://github.com/Minifixio/coemplettes

Many other open-source projects **2014 - Now**
- Early contributor to PocketMine, developed PHP plugins, launched one of France's first Minecraft PE servers.
- Created an npm package for analyzing comment activities in Twitch streams.
- Many other projects are on my GitHub

Achievements and awards

Laureate of the national contest "Innovez" for Science&Vie Junior **May 2020**
- National programming competition for innovative ideas. I made a glove and a mobile application allowing to adapt the tempo of his music according to his heart rate. I also filed a patent for it and presented the project at various conventions.

Volunteering / Activities

Speaker at the Sciences&Vie Junior booth **November 2019**
Speaker *MakerFaire, Paris*
- Speaker at the "Innovate" booth of Sciences&Vie Junior at the Maker Faire Paris held at the Cité des sciences.
- Public demonstration of my award-winning "Sportify" project as part of the "Innovate" competition.

Capitole du libre **2017 - 2018**
Volunteer Staff *ENSEEIHT, Toulouse*
- Weekend dedicated to Open Source softwares through around 100 conferences, 25 workshops for experts and the general public. The event welcomed 1,500 participants.

Télécom Gaming Club **2023**
Member of the staff *Télécom Paris*
- Member of the school's gaming club, actively involved in organizing LAN parties and other gaming-related events