

Zian Li

C++ Developer

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Skills

Languages: C++ (14/17), C, Python, Bash, LISP, SQL
Frameworks / Libraries: Boost, GTest, Flask, CrawCpp, Node.js, OpenCV
Tools / Platforms: Git, Linux, Jenkins, OpenShift, Podman, Control-M, SonarQube
Data / Observability: SQLite, CouchDB, Kafka, Splunk
Practices: Unit Testing & Regression Testing, CI/CD, TDD, Agile (SAFe)
Human Languages: English, French, Chinese

Experience

- Amadeus Inc.** Sep. 2021 – Jul. 2025
Software Engineer (C++, backend development) Nice, France
- Migrated a legacy backend (C++) and supporting scripts (Bash, Python) to Azure cloud infrastructure.
 - Designed and implemented security enhancements to the ticketing system to support PCI-DSS compliance, particularly in components related to credit card processing.
 - Handled day-to-day production support, including SQL execution via database management tools, Control-M job submissions, log analysis, incident monitoring, debugging, and error reporting.
- Audensiel** Mar. 2021 – Aug. 2021
Research Intern (Image Processing) Boulogne-Billancourt, France
- Image processing and computer vision research under a university and industry partner collaboration.
 - Implemented image processing and feature detection algorithms for Bayer CFA raw images.
 - Conducted state-of-the-art reviews, prototyped novel approaches, and contributed to an article: doi:10.1109/EUVIP50544.2021.9484026
- HARMAN International** Dec. 2017 – Apr. 2018
Research Intern (Autonomous Driving) Shanghai, China
- Tested and evaluated an autonomous driving prototype built on ROS, including implementing evaluation algorithms.
 - Contributed to non-core software modules under the supervision of senior engineers.

Education

- St. John Cantius Church** 2026 - present
Organ student (part-time) Chicago, IL
- Studying pipe organ in the music school organized by St. John Cantius Catholic Church.
- Conservatoire de Cannes** 2022 - 2025
Organ student (full-time) Cannes, FR
- Organ repertoire, music theory, music analysis...
- École des Mines d'Alès** 2019 – 2021
Diplôme d'ingénieur (Engineering Master) Alès, France
- **Domain:** Software Engineering and Artificial Intelligence
- Shandong University** 2014 – 2018
Bachelor in Mechanical Engineering Shandong, China

Projects

- HYMNUS** | Flask, HTML
- HYMNUS (HYpertext Manager for MUtical Notation Scripts) is a web-based tool for music score library management. Written in Flask/Python, it can be deployed either locally or server-side. I am actively using it to manage my own music score editions. Migration to C++ and Qt is ongoing.
- HAUTBOIS (WIP)** | C++, Lilypond, Signal Processing
- The project aims to build a symbolic representation, analysis and simulation system for classical music.