William Michaud

Seeking a 6-month internship in computer science starting January 2027
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Education

Lehigh University Fall 2026
Exchange semester · Bethlehem, PA

INSA Lyon 2022 – 2027
Engineering Degree in Computer Science (Diplôme d'ingénieur) · GPA 3.9/4.0 · Graduating Jun 2027
Specialized in Algorithms, Machine Learning, Agentic AI

Experience

Chief Technology Officer May 2026 – Jan 2027
Buddimm · Remote · Real-estate consulting company (~10 people)

- Promoted from intern to CTO; own the full stack: public website, internal tools, lead-generation pipeline.
- I lead AI tooling company-wide: LLM agents with a custom internal MCP, ~20 skills, and team training.
- Built a LangChain + LangSmith testing pipeline: 10 models tested on multiple scenarios based on real usage, delivering essential insights on stability, performance and cost.
- I also maintain the public website and improved its SEO, growing traffic from ~200 to ~2,000 in two weeks.

Freelance AI Engineer Sep 2026 – Present
Citeos Guyane (VINCI Energies) · Public-lighting audit by imagery + AI

- Building a pipeline to replace manual streetlight audits: lamppost detection and streetlight level analysis from satellite imagery using multiple image processing AI models.
- Implemented a 7-step data cleaning and processing pipeline, capable of generating a full audit report.
- Also created a custom data collection tool, allowing for efficient, large-scale street data collection even in rural areas.
- I considerably improved the cost and speed of the audit process: from 1 month of field work for a city to a few hours of desk work.

Freelance Software Engineer Jan 2026 – Apr 2026
BOBST · ST-to-C++ toolchain for a production optimizer

- I was asked to reimplement a large industrial machine simulation program (25,000 lines) written in CODESYS Structured Text, in a more mainstream and stable language.
- The compiler for this language was proprietary, so I built my own custom ST compiler based on C++.
- I also extended the program with an optimizer capable of deriving most configuration values, allowing it to be used live for clients to get an immediate quote during sales.

Research

Suwa University of Science, Nagano, Japan (Summer 2025): Unity VR experiments on behavioral change.
Northwestern Polytechnical University, Xi'an, China (Apr 2024): CAD and fabrication of carbon-fiber aircraft.

Competitive programming

ICPC Europe Championship 2026: 2nd in France, 40th / 53.
ICPC SWERC 2025: 3rd in France, 18th / 142.
Prologin: 4-time finalist (2022 – 2025).
Castor Informatique 2020: 1st / 500,000+.
Match'Up 2022: 1st / 2,000+. Problem setter for the last two editions of this contest.
ICPC SWERC 2026: I have been qualified to compete again in December.

Projects

C compiler (C++) | *github.com/WiredMind2/C-Compiler*

- A compiler for a C subset, with custom syntax parsing, typed three-address IR, and both x86-64 and ARM64 support.
- Added seven performance optimization passes, differential-tested against GCC.

Fuzzing infrastructure (Python) | *github.com/WiredMind2/clusterfuzz*

- A personal fuzzing bot using LLM agents: it hunts and reports bugs in my code before I merge it.
- LLM agents allow for smart, targeted and efficient testing; it often detects issues deeply embedded within the code.
- A self-hosted GitHub App fuzzes pull requests and posts the reports.

LLM company simulation (Python) | *github.com/WiredMind2/CompAIny*

- A multi-agent harness, capable of handling large-scale subagents while ensuring efficient communication and task delegation.
- Based on the idea that a classical company is a very efficient multi-agent system, improved over time by humans, this project simulates similar behaviors using LLM agents.
- Explored different variants to improve agent performance and task completion, and notably a self-improvement mechanism.

Voice control for Windows (Python) | *github.com/WiredMind2/kev-control*

- Based on an open-source equivalent of Jev, this fully local tool allows you to control your computer with your voice in real time.
- Detects on-screen options via OCR, transcribes real-time voice with Whisper, Jev picks the action, a local LLM does the typing.

Trading backtester (Python) | *github.com/WiredMind2/OpenTrade*

- A backtesting app, meant for non-technical users to experiment easily with automated trading strategies.
- Implemented about 15 strategies, using various approaches: technical indicators, machine learning, reinforcement learning, news sentiment analysis on various horizons.

Leadership

INSA Lyon student associations 2023 – 2025

- President of the Algorithmics Club (INSAlgo, 2025): led a ~20-person team teaching and coaching students in competitive algorithmics, and competed in contests such as SWERC.
- Vice-President of the CS students association (AEDI, 2025): 30-person board organizing events for 500 students, notably an internship forum with over 40 companies.
- Treasurer at INSAlgo (2024) and ADT (2023).

Skills

Programming: Strong in Python, C++, TS/JS. Also: Prolog, C#, Java, PHP, Kotlin, Rust, Swift, Ruby
Tools: Linux, Git, Docker, Database (MySQL, SQLite, Postgres, Firebase), Apache, Nginx
Languages: French (native), Creole (native), English (C2), German (B2), Japanese (JLPT N4)