WILLIAM ALEXAKIS

Athens, Greece
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Portfolio & Blog: williamalexakis.com

EDUCATION

St. Catherine's British School (England & Wales Curriculum), Athens, Greece
Expected Graduation: 2028
Coursework (GCSE): Computer Science (Grade 9), Mathematics Extended, Physics Triple Award
Planned (IB): Computer Science HL, Mathematics AA HL, Physics HL

TECHNICAL SKILLS

C, C++, Python, Git, Linux/Unix

PROJECTS

Phase | Bytecode-Interpreted Programming Language (Aug 2025 — Dec 2025)
github.com/williamalexakis/phase
williamalexakis.com/posts/writing-phase

- Designed and wrote a statically-typed programming language in C supporting functions, conditionals, loops, tuple destructuring, 5 primitive types, and a 25-opcode stack-based virtual machine (~4,800 LOC; no external dependencies).
- Engineered a full compilation pipeline featuring a handwritten lexer, recursive-descent parser, static type checker, bytecode generator, and a stack-based virtual machine executor with scoped call frames.
- Implemented 21 error types with source-mapped diagnostics displaying exact file/line/column, visual markers, and diff-style fix suggestions.

ACHIEVEMENTS & AWARDS

- Completed GCSE Computer Science one year early with Grade 9
- 1st Place in Line Robot Competition at StCatsHacks for 3 consecutive years (2023 — 2025) as lead programmer

EXTRACURRICULAR ACTIVITIES

Thaton Motorsport | STEM Racing Team — Software Engineering Member (Oct 2025 — Present)

- Wrote Python script to compute uncertainty metrics (standard deviation, range, variation coefficient) from CFD simulation data and generate visualizations for aerodynamic optimizations.

ADDITIONAL INFO

Languages: English, Greek
Interests: Writing, geopolitics, tech, skiing