

# William Alexakis

Athens, Greece

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Portfolio: [williamalexakis.com](https://williamalexakis.com) • Blog: [williamalexakis.com/blog](https://williamalexakis.com/blog)

## Education

**St. Catherine's British School (England & Wales Curriculum)**, Athens, Greece

- Expected graduation: 2028
- Relevant coursework: GCSE Computer Science (completed one year early; Grade 9), Mathematics (Extended), Physics (Triple Award)
- Planned: IB Computer Science HL, Mathematics AA HL, Physics HL

## Technical Skills

C, Python, Git, Linux/Unix

## Projects

**Phase — Bytecode-Interpreted Programming Language • Aug 2025 — Dec 2025**

[github.com/williamalexakis/phase](https://github.com/williamalexakis/phase)

C, CMake

- Designed and implemented a statically-typed language with a custom bytecode virtual machine.
- Built a modular interpreter pipeline (lexer, parser, type-checker, bytecode generator, VM).
- Added detailed error reporting, debugging tools, and a clean architecture for extension.

**StCats Ops — Full-Stack Internal Management Platform • Oct 2025 — Nov 2025**

[github.com/williamalexakis/stcats-ops](https://github.com/williamalexakis/stcats-ops)

Python, Django, PostgreSQL, HTML/CSS/JS, Azure AD, Render

- Built a full-stack platform for the school CS department featuring scheduling, code testing, and administrative workflows.
- Integrated Azure AD SSO, RBAC, invite-based onboarding, and an administration dashboard with custom actions and audit logs.
- Developed a browser-based Python execution environment using Pyodide and Monaco for staff to write and run code through the platform.

**Void Shell — Unix-Style Shell • Nov 2025**

[github.com/williamalexakis/void-shell](https://github.com/williamalexakis/void-shell)

C, CMake, POSIX APIs

- Implemented a compact Unix shell with a recursive-descent parser and POSIX execution model.
- Added pipelines, redirection, sequential execution, and minimal builtins aligned with Unix composition.
- Created debugging commands to inspect parsing and execution flow.

## Achievements & Awards

- Completed GCSE Computer Science one year early with Grade 9
- 1st Place, Line Robot Competition at StCatsHacks (2023, 2024, 2025) as lead programmer

## Extracurricular Activities

**STEM Racing Team — Software Engineering Member • Oct 2025 — Present**

- Developed and manage the team's official website ([thatonmotorsport.com](https://thatonmotorsport.com)).

## Additional Info

- Languages: English, Greek
- Interests: Writing, geopolitics, swimming, skiing