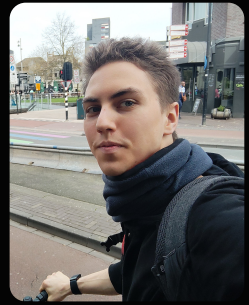


Work Experience

- 2022 - Present **3D Editor Tools Developer – Huawei** *QML/Qt, C++ 17, GTest*
- Responsible for the visual shader graph editor, the **graph compiler** and a **custom DSL** developed on top of GLSL for creating annotated reusable blocks
 - Developed generic library components: reimplemented `std::optional` type, range algorithms, safe `FileUrl/DirectoryURL/AnyURL` types
 - Developed an undo/redo system with composable commands
- 2024 **Compiler Engineer & Web Developer – Hylo – HyloDoc** *Swift, Hylo*
- Designed and bootstrapped a performant **documentation compiler** for Hylo, leading a team of 5 during our 2-month fulltime software project at university
 - Open-source contributor and active community member at Hylo since then
- 2021 - 2022 **Web Developer – Amigos for Children Foundation** *Angular, NestJS, Express*
- A volunteering project in collaboration with **Morgan Stanley** for designing and developing a **gamified learning platform** with a UX targeted for young children
- 2022 - 2023 **Web Developer & Team Lead – Learness – Hobby Team** *Svelte, NestJS, Yjs*
- Designed and implemented an MVP of a collaborative flashcard app
 - Researched and experimented with **distributed systems** technologies including CRDTs, OT models to support real time and offline editing



Ambrus Tóth

A PL and tooling enthusiast.

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Education

- 2022 - 2025 **BSc Computer Science & Engineering – Delft University of Technology**, Netherlands
- Systems Specialization + Robotics Minor**
 - Achieving high grades besides part-time work & social activities (GPA: 8.3/10)
 - Board Member** in a [student dance association](#) as commissioner of dance & head of prog. committee
- 2022 - ∞ **Conferences** – CppCon, C++Now, C++ On Sea, C++ Under The Sea
- Watched over 50 talks from various conferences on C++, systems programming and PL
 - Volunteered at C++ On Sea** and **C++ Under The Sea**, gave a lightning talk about HyloDoc
- 2016 - 2022 **Fazekas Mihaly Secondary Grammar School** in Budapest, Hungary
- Member & **mentor** in the school robotics team, preparing students for informatics final exam
 - Awarded **Medallion of Excellence** for nationally outstanding performance
 - Taught** physics, electronics and programming in summer camps

Skills

- Proactive, curious problem-solver with strong advocacy for change and interdisciplinary thinking
- Designing testable software architecture, and maintaining it over time
- DevOps**: setting up CI, Docker containers and CMake projects
- UX Design (Figma & Adobe XD)** | *Photoshop* | *drawing* | *woodworking* | *Fusion 360 & 3D Printing*
- Proficient in **C++**, **Java** and **TypeScript** and **project experience** with many other technologies:
 - Svelte** | **Angular** | *Express* | *NestJS* | *JS* | *TS* | *HTML* | *CSS* | *SCSS* | *PHP* | *CodeIgniter* | *SQL* | *Spring Boot*
 - Qt/QML** | *C++* | *Electron* | *Android (Java)* | *JavaFX* | *Rust* | *Python* | *Scala*
 - Arduino** | **libopencm3** | *C* | *C++* | *FreeRTOS* | *VHDL*

Projects

- 3D Raytracer from Scratch (C++)** [↩](#) [📄](#)
- A raytracer with path tracing, BVH and bloom filter
- Advanced Robotics Challenge 2020** [↩](#) [📄](#)
- Processeus Smart Thermostat** [📄](#)
- Internal logistics system for my dance association
- Tic-Tac-Toe² Game** [↩](#) [▶](#)
- Automatic Plant Watering System** [↩](#) [📄](#)
- 2048 Game** [↩](#) [▶](#)
- Postlang - An Alternative Markup Language** [↩](#)
- 3D Molecule visualizer & IUPAC name parser** [↩](#) [▶](#)
- Room Finder (Web Scraper)** [↩](#)
- Talio: Collaborative Task Management System**
JavaFX, Spring Boot, Websockets
- Assembly Game** (In **Top 3** Games of the Year)
- Embedded Software Project** - Line Following Robot
STM32, libopencm3, P-control algorithm
- Conference Paper Management Microservice

See more at ambrus.dev

Achievements

Algorithmic Programming

- International Informatics Olympiad in Teams - **7th**
- Coding Tomorrow Cup - **11th** - National
- Ericsson Programming Cup - **2nd** - National

Web Development

- Code To Give - **1st** - International
- Dusza Árpád Memorial Competition - **2nd** - National
- UPC Future Makers - **1st** - National
- The Coolest Projects Dublin - **Future Makers Prize**

Physics

- Öveges József Physics Competition - **1st** - National
- Creative Physics Competition** - **Special Award** - National

Robotics and Programming

- World Robot Olympiad - 1st** - National - Open Category
- World Robot Olympiad - **5th** - Finals - Open Category
- First Global Challenge - **1st** - National Selection Match
- First Global Challenge - **Top 50** - International Final
- World Robot Olympiad Friendship Invitational - **2nd** - International (Denmark) - Open Category
- C3 Szabadfogású Számítógép Award - National
- First Lego League - 6th** - National
- First Lego League Poland - **9th** - Middle-Europe Semi-Final
- National Robot Programming Competition - **8th, 3rd**