Cristian Vasilache

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EDUCATION

Faculty of Electronics, Telecommunications, and Information Technology
"Politehnica" University of Bucharest
Expected Graduation: 2024
Specialization: Information Engineering, Bachelor Year 3, Last year's grade:8.20

CERTIFICATIONS, LANGUAGES, SKILLS, FAVORITE CLASSES & INTERESTS

- **Certifications:** APTE certified, IEEE - EPS - SBC member, CETTI member.

- **Languages :** Romanian (Native), English (Proficient), French (Novice).

- **Skills :**
    - **Software Engineering:** Metaprogramming, object-oriented programming, data-oriented design, C, C++, C#, Rust, Zig, Linux development, graphics programming, OpenGL, Vulkan, game development, Unity.
    - **Hardware Engineering:** Electronics, digital circuitry design, EDA, KiCAD, OrCAD, CAD, FreeCAD, Autodesk Inventor.

- **Favorite classes :** Digital Integrated Circuitry (CID), Data Structures and Algorithms (SDA), Electronic Interconnection Technologies (TIE), Information Transmission Theory (TTI), Microcontrollers (MC)

- **Interests :** Graphics design, writing, economics, politics, accidentally wiping /boot/efi, 3D printing, breaking the 3D printer, repairing the 3D printer, growing plants, working out, watching videos of bunnies, listening to music (the likes of Billy Talent and old-school nu-metal among other genres), learning new programming concepts, gaming (Warframe and others).

PROJECTS & EXTRACURRICULARS

InfoEducatie   2020 - Present
"Utility Software" Jury board member

- InfoEducatie is a national contest, recognized by the National Ministry of Education where highschool students come to show off their programming and robotics skills and win prizes accordingly.

- As a member of the jury board for the "Utility Software" category of the contest, I have been required to be objective and impartial in my evaluation of students' projects, having reviewed nearly 50 projects, as well as plan criteria for said evaluation alongside my colleagues.

Zig Compile-Time Interfaces   Present
Interface system for the Zig programming language

- This project makes compile-time type checking for generics based on interface implementation details and type generation from type reflection possible in Zig with little hassle.

TIE Contest   2022
Won 3rd prize.

- I've designed a 6-layer PCB for a radio-frequency circuit alongisde
  implementing its schematic in KiCAD, where I have also defined the parts'
  symbols and the footprints.
- As a result, I have become APTE certified, a CETTI member, and an IEEE EPS
  SBC member.

Scientific Creativity National Olympiad   2020
Won 1st prize in the "Applied Sciences" category.
Won 3rd prize across all categories.

- Me and my team have won the 1st prize with our research paper titled "Low-
  frequency electromagnetic radiation effects on the organogenesis of
  plants".
- My task was to create the electronics behind the measurement system in
  order to gather the data automatically, process it and create illustrative
  charts. It was an arduino based approach using common sensors monitoring
  air humidity, soil humidity, and others inside two boxes, one being a
  faraday cage, the other being an exposed box, without disturbing the
  experiment.

InfoEducatie   2018
Won 3rd prize in the "Utility Software" category.

- I've made a 2D top-down shooter with procedural generation in Unity, named
  "Gravity Shift", whose source I have closed since the contest.

Public Speaking   2018
National semifinals participant.

- I've reached the national semifinals of the contest with my speech titled
  "We shape our tools. Our tools shape us."

"Adolf Haimovici" Mathematics Olympiad   2018
National-heat participant.

- I've reached the national heat of the national mathematics olympiad "Adolf
  Haimovici".

ITC National Olympiad   2018
National-heat participant in the C# section.

- I've reached the national heat of the C# section of the national ITC
  olympiad.