

# Valentin-Ioan Vintilă

Dedicated, curious, creative and hard-working computer science student with solid experience in modern, **object-oriented C++**, low-level C and Python, knowledgeable in **advanced algorithms, numerical methods and computer architecture**, seeking a competitive and passionate team to be a part of as a software engineer.

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**GitHub:** github.com/w1bb

## EDUCATION

- **2021-2025** Bachelor of **Science Degree**  
*Faculty of Automatic Control and Computer Science, University Politehnica of Bucharest*
- **2020-2023** **High School** diploma  
*"Cantemir-Vodă" National College, Bucharest*

## TEACHING EXPERIENCE

- **since 2023** Analog Electronics **Lab Assistant** (Asst. Prof. Dumitru-Cristian Tranca)  
*Faculty of Automatic Control and Computer Science, University Politehnica of Bucharest*
- **since 2023** Numerical Methods **Lab Assistant** (Prof. George-Pantelimon Popescu)  
*Faculty of Automatic Control and Computer Science, University Politehnica of Bucharest*

## HONOURS & AWARDS

- **Operating Systems Hackathon [2023]**  
2<sup>nd</sup> place
- **Perpetuum [2023]**  
Participation
- **EESTEC (10<sup>th</sup> ed.) [2022]**  
2<sup>nd</sup> place @Side Challenge
- **EESTEC (10<sup>th</sup> ed.) [2022]**  
Qualification @Main Challenge
- **Baliza (1<sup>st</sup> ed.) [2022]**  
1<sup>st</sup> place (written in C)
- **National Olympiad in Informatics [2021]**  
Participation
- **County Olympiad in Informatics [2021]**  
2<sup>nd</sup> place
- **MatelInfoUB - Informatics [2021]**  
1<sup>st</sup> prize & pre-admission pass
- **MatelInfoUB - Mathematics [2021]**  
3<sup>rd</sup> prize
- **National Olympiad in Informatics [2020]**  
Qualification \* *event cancelled due to COVID*
- **County Olympiad in Informatics [2020]**  
1<sup>st</sup> place
- **First Tech Challenge [2020]**  
Innovation Award, 3<sup>rd</sup> place
- **First Tech Challenge [2019]**  
Think & Design Awards, 3<sup>rd</sup> place
- **National Olympiad in Informatics [2019]**  
Bronze medal

## SCIENTIFIC CONTRIBUTIONS

- **Metode Numerice (book, 2023)**  
A soon to be released book about **numerical methods**, written in Romanian.  
The book will be **completely open-source** and will launch in late 2023.

## NOTABLE PROJECTS

- WiParser** Oct. 2023  
A parser combinator written in vanilla C++ 17. Functional programming concepts (*such as map, chain, flatten etc.*) have been introduced to aid parser development.  
[v-vintila.com/wi-parser](http://v-vintila.com/wi-parser)
- Wi-Crypt** Sep. 2022  
An object-oriented C++ implementation of the AES algorithm, allowing for 128, 192 and 256 bit encryption using ECB, CBC, CFB, OFB and CTR modes.  
[v-vintila.com/wi-crypt](http://v-vintila.com/wi-crypt)
- WiCE** Jun. 2021 → Nov. 2023  
A single-threaded chess engine written in object-oriented C++ that allows the computer to beat opponents rated as high as 1800 ELO.  
*This project will soon be replaced by ADLE, a way more powerful chess engine written for the crazyhouse variant. Expected: Nov. 2023*  
[v-vintila.com/wice](http://v-vintila.com/wice)
- Non-AI Spam detector (N-AI Spam)** Jan. 2022  
An advanced heuristic-based spam detection algorithm written in C with a measured performance of  $F_1 = 95.63\%$  on 2000's emails. The program won the Baliza challenge.  
[v-vintila.com/wi-crypt](http://v-vintila.com/wi-crypt)
- v-vintila.com** Nov. 2022  
A modern, responsive website designed from the ground up using HTML5, SASS (CSS3) and JS (jQuery), dedicated to publish my work.  
[v-vintila.com/v-vintila](http://v-vintila.com/v-vintila)

## ENGINEERING SKILLS

- C / C++** **Advanced**, acquired while working on my personal projects and by competing.
- OOP Concepts** **Advanced**, developed for my CS homework and personal projects.
- Python, Java** **Intermediate**, learnt for university and scripting.
- Linux** **Intermediate** user, daily-driving a Linux distribution since high-school.
- Web. Dev.** **Advanced** in HTML, CSS (SASS) and JS, proven by my personal website.
- Electronics** **Knowledgeable**, used KiCad to create an Arduino-like board from scratch.

## PERSONAL SKILLS

- Leadership** Acquired while being a team leader for our high-school's FTC team, *MasterMinds*.
- Communication** Developed while teaching others numerical methods, electronics or just programming.
- Perseverance** Proven by the many competitions I have participated in, including national olympiads.
- Professionalism** Demonstrated by the attention to details found in my projects and their codebase.
- Altruism** Proven by the many open-source projects and free teaching that I have provided.