# 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: <u>github.com/w1bb</u>

#### **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]
   2nd place

- MateInfoUB Informatics [2021]
   1st prize & pre-admission pass
- MateInfoUB Mathematics [2021]
   3rd prize
- National Olympiad in Informatics [2020]
   Qualification \* event cancelled due to COVID
- County Olympiad in Informatics [2020]
   1st place
- First Tech Challenge [2020] Innovation Award, 3rd place
- First Tech Challenge [2019]
   Think & Design Awards, 3<sup>rd</sup> place
- National Olympiad in Informatics [2018]
   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

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

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

# Non-Al Spam detector (N-Al 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/n-ai-spam

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

#### **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.

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