

Emanuel TRUTA

– Software Engineer –

about

to me, engineering is a creative endeavor. like building with LEGO, but I also make the pieces. I started using computers at 2, fell in love with programming at 13, and I’ve kept going ever since. *“so... what can I do so I can keep on creating good stuff for as long as I live?”*

projects

Minecraft 1.7.10 Definitive Edition 「Java, OpenGL, Reverse Engineering」
unified roughly 220 community projects into a single, curated distribution with one consistent vision

OLED Linux 「Shell Scripting」 「project release」
the Linux kernel does not support most OLED displays yet, so I added support for them

ex @

Amazon 「Software Engineer – level 4」 「Full Stack Web Development」	Amsterdam, 1 year
helped improve and optimize Amazon's internal chat support platform used by 350,000 employees developed and shipped features through Amazon's production pipeline 「Security Audits, Incremental Rollouts」	
National Instruments 「Senior Software Engineer」 「C/C++, C#, Python, Linux, Kubernetes」	Cluj-Napoca, 2+ years
- <i>“NI SystemLink Enterprise”</i> : enterprise customer support via technical investigations and live troubleshooting - <i>“NI SystemLink”</i> : contributed to a Kubernetes-based Jupyter Notebook cloud executor service - <i>“Drivers”</i> team: ported Windows drivers & driver installers for NI Hardware from Windows to Linux - <i>“LabWindows/CVI”</i> : rewrote the character conversion systems to add UTF-8 support to the IDE	
Wayfare 「Software Developer」 「Full Stack Web Development」	Cluj-Napoca, 3 years
- <i>“Lasaulec”</i> : contributed to a complete platform redesign 「C#, F#, ASP.Net, JavaScript, React, GraphQL, Cassandra, EventStore, Oracle SQL」 - <i>“Wayman”</i> : developed an in-house asset management and employee review platform 「Python, Flask, JavaScript, Angular, MongoDB」	
Amadeus @ Astek 「Software Engineer」 「C/C++, Linux」	London, 3 months
contributed to TAX team, developing airport ticketing systems that calculate and distribute taxes correctly. my stay here was shortened by Covid. their words after I left: <i>“he proved himself as an incredible consultant [...], demonstrating a professional skill set proper of a Senior profile.”</i>	

education

Keyboard Ergonomics PhD @ Technical University of Cluj-Napoca
Dissertation: *“Keyboard Ergonomics and Keyboard Layout Optimization”*
designed a personal optimized keyboard layout based on Colemak, without the assumptions that Colemak had in its development

Cyber Security Master’s @ Technical University of Cluj-Napoca
Thesis: *designed an android build that is completely off the grid twice, with self-hosted alternatives to cloud services*
- *once from the ground up, by not including any problematic services*
- *once by removing problematic services from a popular build – Samsung’s OneUI*
reverse engineered an Android APK to remove soft time limits to an offline language learning app
studied large portions of the *Intel Manuals*, in an endeavor to implement an *operating system* from scratch
「Assembly / Hypervisor Development, Forensics, Cryptography, Networking, Windows/Android/Web Security, Social Engineering」

Bachelor of Computer Science @ Babes Bolyai University of Cluj-Napoca
Thesis: *simplified hot loading (live code changes without restarting a program) in C/C++ to roughly 150 lines of code*
「Game Development, Audio-Video Compression, Operating Systems, Compilers, Databases, Networking, Web Development」

Computer Science @ High School of Computer Science “Tiberiu Popoviciu” of Cluj-Napoca
here I found my first & most impactful programming mentor: **Nandor Licker**
「Algorithms – Competitions, Game Development, C/C++, OpenGL」

Bel Canto @ “Gheorghe Dima” Music Academy of Cluj-Napoca

wall of honors

International Competitions

2018 Qualification	ACM-Southeastern Europe Regional Contest	Bucharest, Romania
2016 Participation	ACM-Southeastern Europe Regional Contest	Bucharest, Romania
2017 2 nd Place & Silver Medal	DEUK Regional Programming Competition	Debrecen, Hungary
2018 19 th Place on Senior Scoreboard	European Cyber Security Challenge	Online

Domestic Competitions

2014 Bronze Medal	National Olympiad of Computer Science	Pitești
2016 2 nd Place & Silver Medal	National Olympiad of Computer Science for Students	Cluj-Napoca
2020 2 nd Place & Silver Medal	Bosch Future Mobility Challenge 2020	Cluj-Napoca
2015 Special Award for Graphics	Game of Codes	Cluj-Napoca
2016 1 st Place & Gold Medal	Catalysts Coding Contest	Cluj-Napoca
2017 2 nd Place & Gold Medal	Catalysts Coding Contest	Cluj-Napoca