

About

I have been working with computers since I was three years old. I am mostly self-taught, driven by curiosity to understand things fundamentally, thus my interest in mathematics and philosophy.

I am equally interested in psychology; human relations and behaviours. I consider myself a team player, fast to adapt, and a good problem-solver, listener, observer, learner, reader, and writer.

Work Experience

Automattic

SKOPJE, MK

Code Wrangler • PHP, SQL, JS, C (php-src), Lua, Docker, Claude/Codex

Jan 2017 – present

- DevEx: Designing and contributing to projects aimed at enhancing the engineering culture, which includes hiring, mentoring, conducting workshops, tooling, and refining processes
- WooCommerce: Improvements, bug fixes, architecture, and tooling for core, extensions, and woo.com

Faculty of Informatics, University of Skopje

SKOPJE, MK

Teaching Assistant

Mar 2022 – Dec 2022

- Algorithms and Data Structures, Computer Architecture, Internet Technologies

SugarCRM

SKOPJE, MK

Software Engineer Consultant • PHP, SQL, JS

Jun 2012 – Dec 2016

- Improvements and bug fixes for all editions of SugarCRM since 6.5, both back-end and front-end platforms

MediaLab

SKOPJE, MK

Senior Software Engineer • Python, C

Nov 2013 – Dec 2014

- Development of various projects: utility to search frames in videos with an API, remote video player based on FFplay, basic BMS system with API using Phidget

NOVP

SKOPJE, MK

Senior Software Engineer • C, C++

Dec 2012 – Oct 2013

- Development of NPAPI Browser Plugin based on FFmpeg for Technicolor

Ein-Sof

SKOPJE, MK

Software Engineer • Java, C#, SQL

Feb 2010 – Dec 2012

- Software design, development, documentation, and evaluation of projects
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Education

Mit University

SKOPJE, MK

Bachelor's degree in Psychology

eta 2027

Thesis: The Cognitive Representation of God: Structure and Psychological Functions (TBD)

University of Skopje

SKOPJE, MK

Master's degree in Informatics (Software Engineering)

2020

Thesis: *Formal verification of Instruction Sets in Virtual Machines*

FON University, University of Skopje

SKOPJE, MK

Bachelor's degree in Informatics

2015, 2022

Theses: *Programming in Haskell using algebraic data structures*, *Implementing a programming language and a theorem prover*

D.S.U. Kocho Racin

SKOPJE, MK

High school gymnasium

2007

Direction: mathematics

Authored Books

- B. Sitnikovski, *The Mirrors in Us*, Lulu Press, 2025
 - B. Sitnikovski, *Introducing Software Verification with Dafny Language*, Apress (Springer), 2022
 - B. Sitnikovski, *Introducing Blockchain with Lisp*, Apress (Springer), 2021
 - B. Sitnikovski, *Introduction to Dependent Types with Idris*, Amazon KDP, 2018. Re-published with Apress, 2023
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Authored Papers

- B. Sitnikovski, "Budge: A programming language and a theorem prover," *Central Asian Journal of Mathematical Theory and Computer Sciences*, 4(4), 41-45, 2023
 - B. Sitnikovski, B. Stojcevska, "Integrating a Virtual Machine on a system-on-a-chip," *57th International Scientific Conference on Information, Communication and Energy Systems and Technologies (ICEST) – IEEE*, 2022 (also featured on Hackaday magazine)
 - B. Sitnikovski, "Tutorial implementation of Hoare logic in Haskell," *arXiv:2101.11320*, 2021
 - B. Sitnikovski, L. Goracinova-Ilieva, B. Stojcevska, "Models for software verification: Proving program correctness," *The 7th International Scientific Congress ICONBEST*, 2020
 - B. Sitnikovski, "Formalizing line editors in Coq," *arXiv:2006.03525*, 2020
 - B. Sitnikovski, A. S. Jovkovska, "Implementing virtual organizations in the Western Balkan Countries (WB6)," *International Journal of Humanities, Art and Social Studies*, 2020
 - B. Sitnikovski, B. Stojcevska, L. Goracinova-Ilieva, I. Stojmenovska, "PubSub implementation in Haskell with formal verification in Coq," *17th International Conference on Informatics and Information Technologies*, 2020
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Certificates

- Introduction to Psychology – Yale University (Coursera), Skopje, 2023
 - META101x: Philosophy and Critical Thinking – The University of Queensland (edX), Skopje, 2023
 - Introduction to Philosophy – The University of Edinburgh (Coursera), Skopje, 2022
 - ICONBEST 2020 – Faculty of Informatics, University of Skopje, Skopje, 2020
 - CIIT 2020 – Faculty of Computer Science and Engineering, Ss. Cyril and Methodius University, Skopje, 2020
 - EMC E20-120 Content Management Foundations – PearsonVUE OIC, Skopje, 2011
 - C Programming – Semos Education, Skopje, 2011
 - Acquired 1st place (harder group) at XV Regional Programming Contest – ZIM/PMF, Skopje, 2007
 - Acquired 4th place at the 1st Republic Informatics Contest – Alexandria, Skopje, 2007
 - Acquired 3rd place at XVII State Programming Contest – ZIM/PMF, Berovo, 2006
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Talks

- The UNIX way, *WordPress MeetUp #38*, Skopje, 2024
- WASM4All, *BeerJS*, Skopje, 2024
- Metadev Podcast co-host, *CodePub*, Skopje, 2024
- Stepping Beyond Themes: Embracing Headless WordPress, *WordCamp*, Skopje, 2023
- DevEx & DevRel, *WordPress MeetUp #31*, Skopje & *DevCon*, Skopje 2023
- Boosting productivity with WP-CLI, *WordPress MeetUp #29*, Skopje, 2023
- Podcast guest, *CodePub*, Skopje, 2022
- Proofs, theorems, semantics and programming in Budge, *KIKA Hacklab*, Skopje, 2022
- Virtual Machine on the ESP32, *KIKA Hacklab*, Skopje, 2022
- Programming a Wordle bot in Python and Haskell, *KIKA Hacklab*, Skopje, 2022
- Logic, mathematics and software, *KIKA Hacklab*, Skopje, 2020
- Working from home at Automattic, *WordPress MeetUp #23*, Skopje, 2020
- Writing correct programs, *DevCon*, Skopje, 2019
- Where Typesystems End, Proofs Begin, *KIKA Hacklab*, Skopje, 2018
- js subset lisp, *BeerJS*, Skopje, 2017
- Programming with monoids, *KIKA Hacklab*, Skopje, 2014
- Implementation of a VM (CHIP-8) in C, *KIKA Hacklab*, Skopje, 2014
- Lisp, lambda calculus and C, *KIKA Hacklab*, Skopje, 2014
- Reverse engineering Windows applications, *KIKA Hacklab*, Skopje, 2013