Denys **Smirnov**

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Education

V. N. Karazin Kharkiv National University (top 1 tech university in Ukraine)   *Kharkiv, Ukraine*
B.S. in Mathematics   *2015 – 2021*

Experience

Playwing Ltd   *Kharkiv, Ukraine*
C++ Game Developer   *Apr 2020 – Now*
- Worked with Unreal Engine 4 on AAA game.
- Implemented stand-alone deep-linking subsystem independed from concrete UI-components code.
- Created responsive interface on top of Unreal Engine's widget system.

Cruxlab Inc   *Kharkiv, Ukraine*
iOS Software Engineer   *Jun 2017 – Mar 2020*
- Worked with various technologies: CoreData, ARKit, SceneKit, Firebase, Google Maps API, etc
- Mastered a lot of techniques: reactive functional programming, dependency injection, interactive transitions.
- Mastered a lot of software architectural patterns: MVC, MVVM, VIPER, RIBs.

Side-Projects (Open source)

Yet another poll bot.   *Go*
Telegram bot for polls with choosen options restrictions based on user-defined boolean grammar expression. Uses syntax like
$!1\&!2 \Rightarrow 3|4$ to check if selected options are a valid variant.

cp-tool   *Rust*
Competitive programming tool to use with different judge systems as ejudge, codeforces, yandex-contest, and so on. Inspired by
cf-tool, but keep reusablity for different judge systems in mind.

Algorithms and Data Structures   *C++*
Implemented a lot of algorithms widely used in competitive programming in C++. Focused on re-usability and as much usages for as
generous situations as possible with performance in mind.

Honors & Awards

International

Aug 2020	**3rd place**, The Summer School Programming — Uzhgorod	*Uzhgorod, Ukraine*
Oct 2019	**Semi-Finalist**, ICPC 2019 (top competitive programming competition for students)	*Vinnytsia, Ukraine*
Jul 2019	**3rd place**, KPI-Open 2019 (international open student contest on programming)	*Kyiv, Ukraine*
Oct 2017	**Semi-Finalist**, ICPC 2017	*Vinnytsia, Ukraine*
Jul 2017	**Bronze Medal**, Iran's scientific olympiad	*Tehran, Iran*
Oct 2016	**Semi-Finalist**, ICPC 2016	*Vinnytsia, Ukraine*
Jul 2015	**Gold Medal**, IMO 2015 (top mathematical olympiad for pre-college students)	*Chiang Mai, Thailand*
Mar 2015	**Bronze Medal**, RMM 2015 (olympiad among top 20 countries from IMO)	*Bucharest, Romania*
Jul 2014	**Silver Medal**, IMO 2014	*Cape Town, South Africa*

Articles

Tips and tricks for competitive programming cpp souce   *codeforces blog*
- general tips & tricks for cpp source contains various tips can reduce amount of written code: from simple typealiases to using generic lambda syntax for comparators defining
- reading describes how to define and read variables with single macro
- for macro describing ways to reduce code spent on simple `for` — either a macro, or something like ranges library comes in c++20