# **SHUTOV DMITRIY**

MIPT DREC 2<sup>nd</sup> year student

#### **PROJECTS**

## <u>Dmit's Virtual Machine (DVM)</u>







- Turing-complete Virtual Machine
- Executes any programs represented on its **bytecode**
- Contains registers, stack, RAM, video RAM
- **Dmit's ASM** that translates ASM commands into their bytecodes
- Dmit's ASM supports labels and procedures

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- Turing-complete Programing Language
- Frontend/Backend design
- Assembly source compiler output
- Supports functions, variables, arithmetic, control flow operators (conditions, loops), I/O operators
- Papich-inspired syntax

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- Differentiates any math expressions
- Expression optimizations
- Taylor Series approximations
- Python Graphs Plotting
- Bailando LaTeX Output

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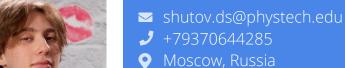
- Cracking x86 binary crackme
- **DOS environment** (for wider types of hacks)
- **SFML** graphic interface

#### PROFESSIONAL SKILLS

- Program Languages: C/C++, ASM x86-64, Python
- Tools: Git, SFML, GraphViz, GDB, LaTeX, IDA, Qt5, Turbo Debugger, TXLib

#### PROGRAMMING COURSES PASSED

- MIPT Python Developing course
- MIPT C++ Developing course
- MIPT Algorithms and Data Structures course
- MIPT Industrial Programing and Compiler Techniques
- MIPT Computer Architecture and Assembly Languages course



- @dmjtsh
- https://github.com/dmjtsh

#### **EDUCATION**

**Bachelor of Applied Mathematics & Physics MIPT DREC** 

🚃 2022 - PRESENT

Moscow, Russia

#### **SOFT SKILLS**

- Time management
- Ambitiousness and leadership skills
- Activity
- Creativity

#### **HOBBIES**

- Workout
- Sambo
- Sailing sports
- Reading