Kompan Vyacheslav Olegovich

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Education

- MIPT, Department of Radio Engineering and Cybernetics (2017 - 2019)

Skills

Languages

- C – seasoned, experience of Linux & OpenVMS system programming, development of CPU simulator, contributing to OpenVMS C Runtime Library
- C++ - seasoned, commits to MIPT-MIPS (traps and syscalls, GDB integration, unit testing, https://github.com/MIPT-ILab/mipt-mips/releases/tag/v2018.3)
- Asm x86 – seasoned, development of bootloader and Text & Graphics BIOS library
- Python 3 – intermediate, various applications
- Lua – intermediate, C/C++ integration

Tools, libraries & frameworks

- Well versed in CMake (including CTest & CPack)
- Experienced in use of OpenGL, GLM, GLSL, OpenCL, NumPy, SDL2, Nuklear
- Advanced use of Flex/Bison for building lexical and syntax analyzers

Other

- STM32 – understanding the principles, designing simple devices
- Experience of designing electronic circuits & boards with Altium Designer
- Familiar with digital logic circuits, combinatorial and sequential logic, optimization of NAND gates usage

Work experience

- C course mentor
  Sep 2017 – Dec 2017, MIPT Intel iLab
  Teaching students to write robust and scalable code in C.
- Software engineer intern
  Nov 2019 – Jun 2020, Huawei
  Working with distributed filesystems (C/C++, FUSE). Developing payload distribution across multiple filesystems (Go).
- C Developer
  Sep 2020 – p.t., VMS Software
  Developing of C Runtime library, porting GNU Bash to OpenVMS.

Projects

Github: https://github.com/trexxet https://github.com/rwxecut
Notable projects:

- **https://github.com/trexxet/virtaxy-vm**: A virtual machine with flexible architecture and assembler. Uses code generation with Python and Flex/Bison expression evaluation.
- **https://github.com/trexxet/tgbl**: Bootloader and library for text and graphics for BIOS
- **https://github.com/rwxecut/mens-et-manus**: A strategy game engine project, including SDL2, OpenGL, Lua integration etc. (WIP)
- https://github.com/trexxet/functor: Math functions parser, differentiator etc. Includes lexical and syntax parsing of a math function to the tree with final optimization (e.g. a*1 -> a) and LaTeX output.
- https://github.com/trexxet/amadeus: Simple multilayer NN without using ML frameworks
- https://github.com/trexxet/PSO: Particle Swarm Optimization algorithm visualizer with some parallel (OpenCL) calculations (WIP)
- https://github.com/trexxet/markov-chan: A simple Markov chain text generator

Additional information

English B2. Linux (Kali/Debian) user.

Quick learning and adaptability to new technologies and systems is what I consider my key strengths. I believe that any task can be solved given enough effort and time – “too hard” tasks do not exist for me.

Code performance, clarity and reusability are my priorities - I tend to make my solutions out as flexible libraries. Automating processes is my strong point: everything that can be automated must be that way; get the maximal result with the minimal hand input.

I have a special love for creating executors, especially processor units – someday I will build a CPU from transistors.

Currently I’m satisfied with my job and not interested in full-time offers. However, I’m open for part-time offers.