

Evgenii Iuliugin

Software Engineer

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SUMMARY

Software engineer with deep knowledge of hardware modeling and virtualization, operating system internals, hardware architectures, and software design principles. Result-oriented and well-qualified to develop complicated software products from gathering technical requirements to full system integration and debug. Programming languages: C/C++ (10 years of experience); x86 assembly; Python. Areas of interest: virtualization, operating systems, compiler technologies.

EXPERIENCE

2012 — 2016 **Intel Corporation** Moscow, Russia
Software Engineer

2016 — now **Intel Corporation** Stockholm, Sweden
Senior Software Engineer

Designed, implemented and optimized processor models. Integrated the models with virtual platforms used for pre-silicon validation.

- Led development of VT-x based acceleration in Intel Simics.
- Designed and implemented VT-x based acceleration in Intel Simics for macOS.
- Designed and implemented automatic generation of x86 instruction descriptions for Intel Simics using Intel XED instruction descriptions.
- Analyzed and improved performance of various Intel Simics processor and device models.
- Debugged and enabled boot scenario for different operating systems and hypervisors on Intel Simics.
- Collected and analyzed customer requirements, designed model components based on the requirements.
- Consulted team members on operating system internals.
- Regularly shared knowledge via technical presentations to the team.
- Regularly reviewed designs and code from peers.
- Mentored junior contributors.

EDUCATION

2009 — 2015 **Moscow Institute of Physics and Technology** Moscow, Russia
MS in Applied Mathematics and Physics

2015 — 2019 **Moscow Institute of Physics and Technology** Moscow, Russia
PhD in Computer Science

LANGUAGES

- Russian — native;
- English — fluent;
- Swedish — basic.

SKILLS

- Expert knowledge of virtual machine design and implementation, including binary translation and direct execution.
- Knowledge of operating system design and implementation.
- Deep knowledge of IA-32 and AMD64 processor architectures.
- Cross-platform development for Windows, Linux and macOS with both native APIs and platform-agnostic libraries.
- Advanced experience with driver development, including Windows Driver Model (WDM).
- Collaborative development with Subversion, GIT, Jenkins, TeamCity, etc.
- Proficiency with configuration management and build systems based on MAKE.

PUBLICATIONS

- E.A. Yulyugin. “Accelerating Simulation of Future Processors with Compiler and Microcode Assist”. In: *2017 IVth International Conference on Engineering and Telecommunication (EnT)*. 2017, pp. 111–113. ISBN: 978-1-5386-4547-5.
- Evgeny Yulyugin. “Same bits, different meaning — when direct execution based simulation becomes complicated”. In: *Design and Verification Conference (DVCon) Europe 2018*. 2018.