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EXPERIENCE	<p>Red Hat, Senior Software Engineer – AI team in Office of the CTO 2019–present</p> <p>Implementation of cloud based stochastic Python resolver based on reinforcement learning, micropipenv. Guided new engineers and interns, cooperating with Universities on theses, led internal process for publishing and releasing Python packages on a company-wide Python package index for internal and external use; co-authored or authored 16 patent proposals – 8 proceeded to US patent filing, designed and implemented most of the parts of Dependency Monkey and Thoth backend, work presented on conferences such as NeurIPS 2020 or PyCon US. Participated in Google’s TensorFlow SIG build and Python upstream communities.</p> <p>Red Hat, Software Engineer – OpenShift.io team, AICoE in Office of the CTO 2017–2019</p> <p>Implementation of Python bots for managing application dependencies, analysis of packages in various ecosystems, mostly Java, JavaScript, Python, Go. Implementation of Selinon that extends Celery with task flows for distributed computing. Selinon was run in OpenShift to gather raw data and to compute additional metrics in AWS infrastructure.</p> <p>Red Hat, Associate Software Engineer – platform team 2015–2017</p> <p>Work related to RPM packaging of Go projects, packaging and fixing bugs in low level terminal tools such as less or tcsh. Work on AF_KTLS kernel module. See master thesis for more info.</p> <p>Red Hat, Engineering intern – platform team 2013, 2014–2015</p> <p>Developer experience team, helping with tool gofed for packaging Go projects to Fedora.</p> <p>AVG, Retargetable decompiler developer 2012–2013</p> <p>Implementation of C/C++ LLVM module in RetDec, focused on reconstruction of code blocks that are optimized by compilers (instruction idioms, optimization of standard C/C++ library functions) on different architectures (Intel, MIPS, ARM). See bachelor thesis for more info.</p> <p>EDUCATION</p> <p>Brno University of Technology – Master of Information Security 2010–2016</p> <p>Ranked in TOP 3 students in the study programme.</p> <p>Thesis: <i>Linux VPN Performance and Optimization</i>; final grade: A</p> <p>Thesis impact: AF_KTLS Linux kernel module providing TLS/DTLS socket to user-space. The work was further extended with cooperation with Facebook and AF_KTLS was used as a base for Linux kernel TLS socket starting vanilla Linux version 4.13 onwards. Module outperforms when transmitting data over TLS where zero-copy optimization can be applied (using sendfile(2), splice(2) system calls).</p> <p>Technological Educational Institute of Crete 2014–2015</p> <p>Erasmus+ study exchange program.</p> <p>Brno University of Technology – Pedagogical Minimum 2013–2015</p> <p>State examination in psychology, pedagogy and philosophy.</p> <p>Brno University of Technology 2013–2015</p> <p>Bachelor of Information Technology; Ranked in TOP 12 students in the study programme</p> <p>Thesis: <i>Reconstruction of Instruction Idioms in a Retargetable Decompiler</i>; final grade: A</p> <p>Thesis impact: A C++ plugin to LLVM based part of the retargetable decompiler RetDec that outperformed HexRays decompiler industry standard in reconstruction of optimized code. The work is still used in open source version of RetDec as of today. Published related research papers in ComSIS and IEEE magazines.</p> <p>TECHNICAL SKILLS</p> <p>GNU/Linux, Python, C/C++, Algorithms and Data structures, Kubernetes/OpenShift, PostgreSQL, Redis, Celery, MongoDB, Argo Workflows, Argo CD, containers, ...</p> <p>HOBBIES</p> <p>Football, Road Cycling, Mountains, Psychology</p>