Maksim Smolin

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Summary
Software engineer with experience in systems programming, distributed computing, and machine learning. Interested in work at the intersection between mathematics and Computer Science.

Programming Languages
C++, Java, Python, JavaScript/Node.js, Haskell, Coq, Assembly

Technologies
Git, Ansible, AWS, Terraform/Pulumi, MySQL, Web technologies, LaTeX, NixOS, Ghidra

Interests
Functional programming, Programming language design, Formal verification, Theoretical CS, Game dev, Innovation in tooling (IDEs, version control, package management), Open source software, Machine learning

Human Languages
English (bilingual), Russian (native speaker)

Anyscale, Inc. Spring 2020 - Ongoing
Software Engineering Intern

Along with three other engineers, worked on improving the open-source offering for creating distributed Machine Learning applications in Python, named RaySGD (hosted at github.com/ray-project/ray).

Collaborated on API design; wrote example code, tests, and documentation; substantially improved the command line interface for the Ray project as a whole.

University of California, Berkeley
Undergraduate; Computer Science + Pure Mathematics

Officer at the Machine Learning @ Berkeley club — ml.berkeley.edu

Ongoing	Led a research project on finding the semantic meaning in Convolutional Neural Networks.
Ongoing	Led a group that created a student-run course on ML in healthcare.
Ongoing	Co-managed a group creating an EdX online course.
Spring 2020	Taught a student-run course on self-driving cars.

A few notable Pet Projects:

nOS · Operating system · *C++, Assembly, Haskell*
https://github.com/maximsmol/nos
An x86 Operating system written from scratch with a custom Assembly bootloader, a complex Haskell-based build system and C++ kernel and drivers. Currently able to boot and read ATA drives.

Open GraphEq · Graphing software · *C++*
https://github.com/maximsmol/Open-GraphEq
An implementation of an algorithm for generating *extremely robust* graphs of mathematical functions from "Reliable Two-Dimensional Graphing Methods for Mathematical Formulae with Two Free Variables".

rolmodl · Graphics library · *C++* · https://github.com/maximsmol/rolmodl
C++ API for the C-based Simple Directmedia Library, focused on making the memory safety trade-offs explicit and preserving the performance of the original.