

Google Internship & Full Time Positions

Google is looking for great interns and full-time engineers with backgrounds in programming languages, compilers, optimization, and software engineering!

If you are interested, please submit your resume to <https://www.google.com/about/careers/students/>. Please be sure to be descriptive in open-ended questions about skills and preferences; e.g., "Compilers and Performance" (or something specific to your area). We accept applications and host interns year around, but most positions are for summer and begin to fill in December.

Google is leading many active development projects relating to hardware performance/acceleration, Android, ChromeOS, GCC, LLVM, JavaScript, Go, Dart, Java, and Python, and we have some great projects in mind. Interns will be exposed to Google's extensive internal developer tools and massive computing infrastructure. Some projects will have a strong emphasis on research and publication, with recent interns submitting to conferences including ASPLOS, CGO, HiPEAC, HPCA, ISCA, MICRO, PLDI, ICSE, and Supercomputing.

Areas of interest include:

- Performance analysis of large datacenter applications
- Improving performance for x86, ARM (aarch32 and aarch64), GPUs, and POWER
- Improving security via code sandboxing
- Compiling for GPUs and hardware accelerators for Machine Learning and image processing (e.g. TPU)
- Software correctness and race detection
- Static/dynamic program analyses
- Machine learning
- Autotuning and staged compilation
- Large-scale, automated refactoring
- Application co-location performance studies
- Hardware performance monitoring
- Feedback-directed optimization
- Profiling tools, perf_events, Linux perf tool
- Low-overhead instrumentation
- Type inference, type checking, gradual typing
- Garbage collection and automatic memory management
- Managed runtime optimization
- Power and energy optimizations for the datacenter