

Software Engineering Intern, PhD, Summer 2017

Applications are due by January 31, 2017 at 11:59pm PST. Our team will review applications on a rolling basis and it's in the candidates best interest to apply early. All hiring will be completed by April 2017. Thank you for your patience while we consider your application.

Software Engineers at Google are researchers and developers who yearn to create and implement complex computer science solutions. Our engineers develop massively scalable, distributed software systems and also collaborate on multitudes of smaller projects that have universal appeal - requiring awareness and comprehension of the latest research in the field. We focus on being a collaborative, global organization consisting of engineers with the highest levels of technical depth, programming skills and a keen eye for quality.

As a Software Engineer Intern, you will work on our core products and services as well as those who support critical functions of our engineering operations. You build strong competencies in data structures and algorithms, along with a technical fascination for how stuff fits together. You need to have a solid foundation in computer science in order to consistently come up with new ideas as well as strive for a deep understanding of our products and services in order to continually improve upon them. Typically our PhD Interns are expected to work in the following area:

Product and Systems Development

Whether it's finding new and innovative ways to advance search quality, building computing platform and networking technologies, automating the indexing of videos, or continuing to refine and scale complex auction systems (just to name a few), you will be developing solutions to some of the most challenging technical problems out there. You will research, conceive and develop software applications to extend and improve on Google's product offerings and collaborate on scalability issues involving access to massive amounts of data and information. Examples of specialist domains: UI development with AJAX and similar technologies, security, embedded systems and mobile apps (Android), developer tools (IDEs, large-scale build systems, compilers).

Engineering Productivity

As a Software Engineer in the Engineering Productivity organization, you'll use your software design, analysis and programming skills to create innovative automated test systems. This isn't a job in which you'll simply debug and run test cases, in fact that only scratches the surface. The test team undertakes a broad range of challenges on a daily basis, designing and building intelligent systems that can explore various use cases and scenarios for distributed computing infrastructure. Just imagine trying to design and build an automated testing system for something that's never been done before. There are no text books that can help you learn this, which is why we have some of the best engineers working in this group.

Site Reliability

Software Engineers working in Site Reliability are involved in every facet of Google's production and work on the cutting-edge of cloud-based computing. As a member of this team you are in the thick of everything involved with keeping Google running, from code-level troubleshooting of traffic anomalies to maintenance of our most cutting edge services; from monitoring and alerts to building new automation infrastructure. Software Engineers on this team love to create robust and scalable software that scale to tens of millions of users. You will handle challenging, novel situations every day, and work with just about every other engineering and operations team to provide services and applications that are quintessentially Google - fast, reliable and accessible to all.

Responsibilities

- Research, conceive and develop software applications to extend and improve on Google's product offering.
- Contribute to a wide variety of projects utilizing natural language processing, artificial intelligence, data compression, machine learning and search technologies.
- Collaborate on scalability issues involving access to massive amounts of data and information.

Minimum qualifications

- Currently pursuing a PhD degree in Computer Science or related technical field.
- Must be currently enrolled in a full time degree program and returning to the program after the completion of the internship.

Preferred qualifications

- Research experience in Algorithms, Architecture, Artificial Intelligence, Compilers, Database, Data Mining, Distributed Systems, Machine Learning, Networking, or Systems.
- Implementation skills with one or more general purpose programming languages including but not limited to: Java, C/C++, C#, Objective C, Python, JavaScript, or Go.
- A solid foundation in computer science, with strong competencies in data structures, algorithms, and software design.

Area

Google is and always will be an engineering company. We hire people with a broad set of technical skills who are ready to tackle some of technology's greatest challenges and make an impact on millions, if not billions, of users. At Google, engineers not only revolutionize search, they routinely work on massive scalability and storage solutions, large-scale applications and entirely new platforms for developers around the world. From AdWords to Chrome, Android to YouTube, Social to Local, Google engineers are changing the world one technological achievement after another.

Job details

Team or role:

Software Engineering

Job type:

Intern

Last updated:

Sep 20, 2016

Job location(s):

Chapel Hill, NC, USA; New York, NY, USA; Cambridge, MA, USA; Washington, DC, USA; Mountain View, CA, USA; Seattle, WA, USA; Ann Arbor, MI, USA; Kirkland, WA, USA; San Francisco, CA, USA; Chicago, IL, USA; Portland, OR, USA; Pittsburgh, PA, USA; San Bruno, CA, USA; Boulder, CO, USA; Los Angeles, CA, USA