

# Adobe Research Careers

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The 10th ACM SIGGRAPH Conference and Exhibition on Computer Graphics and Interactive Techniques in Asia

# Who We Are

With more than 120 world-class research scientists and engineers, Adobe Research blends cutting-edge academic discovery with industry impact. Our scientists are provided with the resources, support, and freedom to shape their ideas into innovative technologies. They collaborate with colleagues at over fifty universities, often presenting their work at international conferences. Many of our researchers' discoveries are incorporated into Adobe's products, building the company's reputation as a pioneer in content and data intelligence. Today, Adobe Research is growing in new areas, including artificial intelligence, machine learning, immersive media, document intelligence, analytics, and data mining.

#### Job Openings

# 1. Research Engineer (San Francisco or Seattle) Link

#### **Responsibilities:**

- Serve as a domain expert for research and product groups.
- Implement algorithms described in research papers.
- Build prototypes from scratch.
- Evaluate the viability of new research for inclusion in Adobe's products.
- Have an impact on shipping applications with millions of users.
- Mentor interns from top universities.
- Participate in international fellowship and scholarship initiatives.
- Help shape the future of artistic expression.

#### **Requirements:**

- Significant experience in academic research or industry research for example, publishing in top-tier conferences or journals, or 3+ years of industry experience as a software engineer in research.
- Ability to understand, implement, and extend academic publications.
- Solid software design skills and the ability to write efficient, clean, and reusable code.
- Strong communication and collaboration skills.



- Ability and enthusiasm to learn new technologies quickly.
- Proficiency in project selection.

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# Additional desired qualifications:

- Significant expertise in at least one of these Creative Intelligence Lab research areas:
  - Machine learning, computer vision, and natural language processing
  - Virtual reality and augmented reality
  - Image, video, and audio processing
  - Human-computer interaction
  - Computer graphics and animation
  - Programming languages, compilers, and performance
- Proven ability to lead feature development from concept definition to shipping product.
- Solid foundations in math, algorithms, data structures, and numerical optimization.
- Experience with programming languages commonly used in computer science research (e.g., Python, MATLAB, R).

# 2. Software Engineer, Adobe Research – Immersive Digital Painting & Creative Tools (San Jose) Link

#### **Responsibilities:**

- Develop prototype applications (including UI) based on new technologies.
- Integrate new technologies Adobe's existing applications and cloud services.
- Develop frameworks for testing, exploration, or deployment of new technologies.
- Optimize and tune the performance of code.

#### **Requirements:**

- MS or BS in Computer Science (or equivalent) and extensive programming experience.
- Strong engineering skills.
- Strong C++ development skills.
- Experience in iOS tablet app development, including UI development.
- Experience with GPU development (e.g., OpenGL, OpenGL ES, Metal, Vulkan, DirectX).
- Solid understanding of algorithms, data structures, object oriented design, and user experience fundamentals.
- Strong verbal and written communication skills.



#### Additional desired qualifications:

• Experience developing both on Windows and Mac

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- GPU compute experience. This may include OpenCL, CUDA, or DirectCompute.
- Experience developing Android apps.
- Code optimization experience (GPU & CPU).
- Software architecture skills.
- 3. Software Engineer, Adobe Research Machine Learning Powered Creative Tools for Everyone (San Jose) Link

#### **Responsibilities:**

- Develop frameworks for testing, explorations or for deployment of new technologies.
- Create prototype tablet apps (including UI) based on new technologies.
- Integrate new technologies into Adobe's Creative Cloud applications and services.
- Deploy software that is powered by machine learning in the cloud and on mobile platforms.

#### **Requirements:**

- MS or BS in Computer Science (or equivalent) and extensive programming experience.
- Strong engineering skills.
- Strong C++ development skills.
- Basic knowledge of Python.
- Familiarity with machine learning and deep learning.
- Familiarity with basic computer graphics and vision algorithms.
- Experience in the area of iOS tablet app development, including UI development.
- Solid understanding of algorithms, data structures, object-oriented design, and user experience fundamentals.
- Strong verbal and written communication skills.

#### Additional desired qualifications:

- GPU compute experience. This may include, OpenGL, OpenGL ES, OpenCL, CUDA, or DirectCompute.
- Experience developing both on Windows and Mac.
- Hands-on experience with machine learning, especially deep learning.



• Experience developing Android apps.

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- Experience with cloud computing and/or web development.
- Interest and knowledge in visual art, design, and photography.

# 4. Software Engineer – Programming Languages and Performance (Cambridge or Seattle) Link

#### **Responsibilities:**

- Collaborate with world-class scientists and engineers, within Adobe Research and across the company.
- Help create, build, test, and deploy novel image and video processing algorithms.
- Have an impact on shipping applications with millions of users.
- Learn from your peers and grow into new opportunities.

#### **Requirements:**

- Bachelor's or Master's degree in Computer Science or a related field.
- 3+ years of industry experience as a software engineer, building products that shipped.
- Solid software design skills.
- Ability to write efficient, clean, and reusable code, preferably in C++.
- Strong communication and collaboration skills.
- Ability and enthusiasm to learn new technologies quickly.

#### Additional desired qualifications:

- Experience implementing image processing algorithms.
- Expertise in performance profiling and optimization.
- Familiarity with the Halide domain-specific language.
- Understanding of modern CPU and GPU architectures and code generation techniques.
- Understanding of domain-specific programming languages and compilation.
- Knowledge of mobile computing as well as desktop computing.
- Proficiency in signal processing algorithms for images, video, or audio.
- Experience transferring new research into shipping products.

# 5. Virtual Reality Video Engineer (San Francisco) Link

#### **Responsibilities:**

- To work with a team of researchers to help realize the future of VR video
- Integrating technologies into existing products
- Designing new standalone apps that work in concert with those products



• Developing new prototypes based on cutting edge research

### For successful candidates:

• You are comfortable building products from scratch.

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- You have shipped software in a commercial environment and can deal with last-minute bug fixes and schedule changes.
- You have experience moving research (your own or someone else's) into products.
- You are passionate about creating a polished and compelling user experience.

#### **Requirements:**

- Proficient with C++ and OpenGL.
- Experience with real-time interactive 3D graphics.
- Track record of developing from concept all the way to shipping products.
- 5+ years of professional experience as a software engineer.
- Solid design skills and ability to write efficient, clean, and reusable code.
- Strong communication skills and teamwork experience.
- Ability and willingness to learn new technologies quickly.
- A Bachelor's degree in Computer Science or a related field.

# Additional desired qualifications:

- VR software development
- Filmmaking, post-production
- Mobile development (iOS, Android)
- Web development (javascript, WebGL)
- Performance profiling and optimization