Scott Goodrow
[redacted]
San Ramon, CA 94582

([redacted])[redacted]-[redacted]
[redacted]@gmail.com
www.scottgoodrow.com

Software Engineer

Inventive software engineer with experience in the full software development lifecycle–from concept to delivery of next-generation solutions and applications.

Technical Tools

Programming Languages: C++, C#, JavaScript, Cg, Python, Bash, Fortran, SQL, Matlab, Latex

Libraries/Frameworks: .NET, Steamworks, Unity, FMOD, jQuery, Node.js, Angular.js, JSON, XML

Software/Operating Systems: Visual Studio, Unity, Mercurial, Git, Linux, Windows, OSX

Professional Experience

- **Ilsanjo, Inc.** Santa Rosa, CA
  Founder, Software Engineer Jan. 2013 - Present
  - Lead small team of developers through one-month SCRUM sprints with continuous integration for the four-year development cycle of *The Wild Eternal*, a first-person adventure game for PC.
  - Responsible for developing and maintaining entire C# codebase, including UIX, AI behavior trees, character controllers, quadrupedal locomotion, asynchronous serialization, dependency-injection unit-tests, cloud integration, and build tools.
  - Developed state-of-the-art realtime volumetric fog shaders in Cg and a modified rendering pipeline to support dynamic light attenuation and layered transparency shading.
  - Set up an SSH-encrypted server and subversion protocols for each sector of the development team for local and remote contribution.
- **Center for Astrophysics & Space Sciences** La Jolla, CA
  Research Assistant July 2011 - Jan. 2013
  - Wrote ray-trace simulation in Python to model total internal reflection corner-cubes under axial and radial thermal gradients, yielding further evidence for the theory of dust accumulation on lunar retro-reflector arrays. Verified results experimentally in an optics lab.
  - Published comprehensive analysis of corner-cube optical behavior including a broad collection of simulated and experimental diffraction patterns, resolving disputes in the literature and an error in the market-leading textbook *Optics*.
  - Applied regression analysis to 10+ years of accumulated lunar laser-ranging data and determined 5 APDs of the Apache Point Observatory Lunar Laser-ranging Operation were under-performing.

Publications

T. W. Murphy Jr., R. McMillan, N. Johnson, and S. Goodrow. Lunar eclipse observations reveal anomalous thermal performance of apollo reflectors. *Icarus*, 231:183–192, 2014. doi: 10.1016/j.icarus.2013.12.006

S. Goodrow and T. W. Murphy Jr. Effects of thermal gradients on total internal reflection corner cubes. *Applied Optics*, 51: 8793–8799, 2012. doi: 10.1364/AO.51.008793

T. W. Murphy Jr. and S. Goodrow. Polarization and far-field diffraction patterns of total internal reflection corner cubes. *Applied Optics*, 52:117–126, 2013. doi: 10.1364/AO.52.000117

Education

- **University of San Diego, California** La Jolla, CA
  Bachelor of Science in Astrophysics Aug. 2008 - June 2011