

# Joshua M. Hyman

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## Education

[UCLA School of Engineering](#)

**Ph.D. Computer Science**

Los Angeles, CA  
December 2009

[UCLA School of Engineering](#)

**M.S. Computer Science**

Los Angeles, CA  
March 2008

[UCLA School of Engineering](#)

**B.S. Computer Science and Engineering**

Eta Kappa Nu Honors Society Member  
GPA: 3.6

Los Angeles, CA  
June 2005

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## Skills

Fluent in: C, C++, and Python

Skilled in Linux/UNIX environments

An understanding of computer networking and large distributed systems

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## Work Experience

[Google Inc.](#)

**Staff Software Engineer**

Los Angeles, CA  
September 2004 - Present

Responsible for video and image search indexing infrastructure that consists of several interacting distributed systems to crawl and process media documents. These systems continuously build the corpora that back the video and image search verticals. I serve as the Technical Lead and Manager for a team of 10 engineers that interacts with several globally distributed remote teams.

Previously, I helped implement BigTable, distributed storage solution. Updated the build system to use cross compilers and a distcc based distributed build cluster. Built a distcc compile cluster and optimized distcc to handle concurrent compile jobs.

[IBM Almaden Research Center](#)

**Extreme Blue Technical Intern**

San Jose, CA  
June 2004 - August 2004

Designed and implemented a Linux research project using Python. Presented this project to IBM Executives and Distinguished Engineers. Performed design and code reviews for other projects in the lab.

[Universal Studios](#)

**Software Engineering Intern**

Universal City, CA  
January 2004 - April 2004

Designed, developed, and deployed a security analysis and remediation tool to provide more restrictive windows share and NTFS permissions on Windows NT and Windows 2000 servers. Web interfaces were provided to server owners and the operations group to monitor the tools progress. Developed in ASP.NET and VB.NET with a MSSQL back end database.

[UCLA Network Research Lab](#)

**Research Assistant**

Los Angeles, CA  
June 2003 - January 2004

Developed a license enforcement addition for a wireless networking optimized TCP stack by providing kernel modifications and a system daemon to authenticate against a remote license

server; using C, Python, public key cryptography, and a MySQL backend on FreeBSD. Updated Super Scalar processor simulation to include power and temperature modeling; using C++ and Java on RedHat Linux.

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## Papers/Patents

**Josh Hyman**. *Imagers as Sensors: Using Natural Visible Light Images to Measure Natural Phenomena. Ph.D. Dissertation, 2009*

Teresa Ko, **Josh Hyman**, Deborah Estrin, Stefano Soatto, Mark Hansen, Eric Graham. *Embedded Imagers: Detecting, Localizing and Recognizing Object and Events in Natural Habitats. IEEE Proceedings on Emerging Sensor Network Applications, 2009*

**Josh Hyman**, Mark Hansen, Eric Graham, Deborah Estrin. *Estimating the Spectral Reflectance of Natural Imagery Using Color Image Features. ImageSense Workshop of SenSys, 2008*

**Josh Hyman**, Dustin Boswell. "Storing and Leasing Units of Work", 2008 (patent pending)

**Josh Hyman**, Eric Graham, Mark Hansen, and Deborah Estrin. *Imagers as sensors: Correlating plant CO<sub>2</sub> uptake with digital visible-light imagery. Data Management in Sensor Networks workshop of VLDB, 2007*

Sasank Reddy, Andrew Parker, **Josh Hyman**, Jeff Burke, Deborah Estrin, Mark Hansen. *Image Browsing, Processing, and Clustering for Participatory Sensing: Lessons From a DietSense Prototype. Workshop on Embedded Networked Sensing, 2007*

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## Honors

UCLA School of Engineering Dean's List

Eta Kappa Nu Computer Science and Electrical Engineering Honors Society

American Mensa Member

6th Place in ACM Regional Programming Competition

Top 10 score in Brainbench Certifications for C, C++, and Python

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## Other Interests

Playing sports such as Baseball, Tennis, Soccer, Football, and Basketball

Local professional sports teams

National Scouting Organizations (became an Eagle Scout at age 15)

Activities: river kayaking, skiing, snowboarding, and backpacking

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References available upon request