

Andrew F. Hart

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Technical Experience

- Co-founder / Chief Technical Officer [Pogoseat, Inc.](#) Apr. 2014 - Present
 - Responsible for the development and evolution of the Pogoseat platform, including APIs, mobile web application, client dashboards, infrastructure, and data analytics. Transitioned operations to AWS cloud infrastructure and directed international expansion. Built and managed an engineering team of eight and established a culture based on agile development principles.
- Software Engineer I, II, III [NASA Jet Propulsion Laboratory](#) Feb. 2007 - Mar. 2014
 - Developed a streaming data search and visualization system for time-series data from the NASA Curiosity Mars rover. Scaled to billions of telemetry data points while maintaining a highly interactive, browser-based UI. Tool is actively used by NASA across multiple missions. [Apache Spark, Apache Solr, JavaScript, Python, HTML5, Amazon EC2]
 - Designed a suite of web services for on-demand processing of NASA global climate datasets in support of regional climate modeling. Helped transition the project to open source as the [Apache Open Climate Workbench \(OCW\)](#). Leveraged Apache Hadoop to build a scalable data processing pipeline. [Apache Hadoop, HIVE, PHP, Python, Java]
 - Led front-end development for a multi-mission data management pipeline for airborne research platforms. Responsible for a team of developers building web interfaces to workflow systems and data archives. [PHP, HTML5, CSS3, JavaScript]
 - Used Python to develop near-real-time data collection and analysis tools for a network of distributed weather stations. Provided a web interface for ad-hoc exploration and manipulation of the data. Developed a data API for access by external researchers. [Python, MongoDB, Node.js]
- Graduate Research Assistantship [USC Information Sciences Institute](#) May 2006 - May 2007
 - Extended the open source LinuxBIOS project to implement mutual assurance checks at the BIOS level for security between a network controller and client nodes. [C, x86 Assembly]

Education

- M.S., Computer Science* University of Southern California, May 2007 GPA: 3.8/4.0
– *Emphasis in Software Engineering*
- B.S., Computer Science* University of Southern California, May 2005 GPA: 3.2/4.0
– *Minor in Multimedia and Creative Technologies*

Publications, Teaching, and Speaking

- First author of several peer-reviewed conference papers and journal articles, published in venues such as *IEEE Computer*, *IEEE Software*, *IEEE IT Professional*, *IEEE Computer Based Medical Systems*, and the *Astrophysical Journal*. A full list of publications is available at andrewhart.com/publications.
- Designed and taught a one semester introductory Computer Science course for STEM students at the community college level.
- Co-author of a chapter entitled “Architecting Data Intensive Systems” published in *Handbook of Data Intensive Computing*. B. Furht, A. Escalante, eds. 1st Edition. Springer Verlag, 2011.
- Speaker at OSCON (2010). Described the debut of Apache OODT as open source software. [[YouTube](#)]

Extracurricular and Miscellaneous

- Elected a Member of the Apache Software Foundation Jun. 2012
- Committer and member, Project Management Committee, Apache OCW, Apache OODT Jan. 2010
- Additional information, including online portfolio: www.andrewhart.com