

Daniel Pang

dfmaptool@gmail.com

<https://www.linkedin.com/in/dpiresearch>

Summary and Achievements

- Engineering Manager for two different teams and products in Adobe DX – ML in AdCloud and new services for Universal Segmentation.
- Reduced AWS costs from \$250K to \$110K per month at Adobe AdCloud through reduced storage, network transfer, and compute.
- Experienced working with geographically distributed teams in India, China, Europe, South America.
- Collaborative work with individuals from CEOs to ICs across product, engineering, sales, marketing, HR, and legal.
- Active learner via online courses and a participant in two Adobe hackathons involving LLMs in 2021(OpenAI Codex) and 2023 (GPT-4). Also an active participant in external hackathons (AGI House and GenLab).
- Active in mentorship at Adobe and externally with new grads and seasoned professionals.
- Angel investor with experience evaluating founders, teams, ideas, and market.
- Patent - <https://patents.google.com/patent/US11348130B2/en>

Education

Coursera

- Generative Adversarial Networks (GANS) Specialization (Nov 2020)
- DeepLearning.ai – 4 Courses in Neural Networks (Dec 2017)
- Computing for Data Analysis – Roger Peng, John Hopkins (Dec 2013)
- Data Analysis – John Leek, John Hopkins (March 2013)
- Artificial Intelligence – Andrew Ng (April 2012)

California Institute of Technology, Pasadena, CA

B.S. Engineering and Applied Science, Computer Science Emphasis

Work Experience

Engineering Manager – Universal Segmentation Adobe, San Jose, Nov 2021 - Present

- Shepherded account segmentation product from ideation, design, implementation and deployment.
- Managed a team of 4 to create and enhance 3 services that went into Alpha production in June 2023.
- Worked actively across 5 geographically distributed teams involving product requirements, architecture, and systems design.
- Participated in the initial development of the Segment Definition Descriptor (SDD) language.

Engineering Manager – Machine Learning, AdCloud, Adobe, Emeryville, Apr 2018 – Nov 2021

- Managed the team responsible for training and onboarding models for Adobe AdCloud.
- Rolled out new patented forecasting system based on sketches.
- Reduced AWS costs from \$250K to \$110K per month.
- Improved quality and SLA via improved monitoring and alerting at data ingest and processing.

Consulting Data Scientist, Category Development, WalmartLabs, Sunnyvale, Aug 2016 – Sept 2017

- Image Detection algorithms and workflow for Made In USA badge detection. Developed algorithms and scripts in Python, SQL and Hive.
- Impact Measurement of attribute enrichment using the CausalImpact R package, Python and SQL. The system is currently used by at least five different groups to measure content improvement efforts.

Consultant, Data Engineering and Analytics Group, GE Digital, San Ramon, Aug 2015 – Aug 2016

- Power Water and Gas Cycle detection
 - Developed proof-of-concept using Python, Numpy, and PostgreSQL on Pivotal HAWQ
 - Algorithm successfully detected cycles for assets throughout the U.S. from early 2000 to present.
- Aviation Rapid Data Forensics
 - Worked with data scientists to collect and generate engine and flight statistics
 - Converted standalone algorithms to work with the Pivotal HAWQ environment using PL/R and PL/Python
- Predix Analytics Certification
 - Member of committee determining analytics model certification for the Predix platform

Big Data Consultant, Ebay, San Jose, CA Oct 2011 – Aug 2015

- Architected and implemented data flow for two Hadoop clusters within the eCGs Incubator Markets.
- Implemented data driven features for the ECG cluster to production using Pig 0.11 with Java-based UDFs with orchestration by Azkaban 2.
- Collaborated with product owners to realize data-driven features for SEO, Search optimization, traffic, monetization, and site health.
- Presented talks around potential projects associated with user navigation behavior, search term conversions, device detection, and feature metrics.
- Worked with engineers and devops around migration issues and capacity planning
- Finished POCs around user recommendations using Mahout and real time processing utilizing Kafka and Spark Streaming.
- Utilized R and H2O to investigate seller clusters on eCG sites.
- Produced adhoc reports and graphs utilizing Excel and Tableau.

Team Lead, RichRelevance, San Francisco, CA June 2009 –Oct 2011

- Led the advertising team to improve all aspects of the RR ad server including inventory forecasting, pacing, campaign configuration, and reporting.
- Led team that re-architected backend infrastructure. Major storage and processing components were converted from Postgre and DB scripts to use Hadoop, Avro, and Pig. Over 50 backend processes were either deprecated or converted to use pig scripts. Processing times were reduced and DB usage reduced from 600GB a month to 20GB.
- Re-architected feed infrastructure to streamline customer deployments, increase processing performance, introduce feed validation and data verification, and enhance code readability and code test coverage.
- Scrum Master for Platform and Advertising groups.
- Worked with Integration Engineers, Relationship Managers, and customer IT departments to architect solutions and ensure successful deployments.
- Managed teams of 5 to 7 engineers involved with up to 4 separate projects.

Senior Software Engineer, Yahoo, Sunnyvale, CA March 2009 - June 2009

- Development of production-quality applications tailored for mobile devices utilizing php and the Blueprint platform.
- Involved primarily with Twitter and Yahoo! Answers. Peripheral contributions to Yahoo! News, Sports, and Finance.
- Sole contributor on many aspects of the SDLC from product design to implementation to build release.
- Coordinated with internal and third parties to bring applications to production.

Technical Lead, Vodafone, Inc., Walnut Creek, CA December 2003 – March 2009

- Involved in various capacities with the Personal Album Project including
 - Design and initial coding of Personal Album API (Java) to be used by user interface developers.
 - Design, coding, and execution of PA 1.x to PA2.x data migration (MySQL)
 - Design, coding, and deployment of Personal Album Facebook application (PHP)
- Involved with the rollout of the Vodafone Personal Album and Personal Backup products.

- Coordinated with Vodafone UK and Voxmobili, Paris, FR in rollout of the Personal Backup product. Principally responsible for management of data migration which required coordination of 20+ people across 6 departments.
- Researched game companies for the Vodafone Joint Innovation Lab project.
- Coded prototypes using the following platforms/technologies: SecondLife, Facebook. Flex/Flash.
- Full SDLC involvement for the Vodafone Foundation Wireless Innovation Project. Code written with HTML/CSS and Flex front end and J2EE backend.
- Performed technical due diligence on companies for Vodafone Ventures.
- Evaluated RFPs from companies for various work orders.
- Owned purchasing/billing and personalization components related to the Vodafone Live! Mobile portal used by millions of users worldwide. Integrated the Service Development Platform with the **Changing Worlds** personalization engine and the Vodafone **ER** billing engine through 5 releases (2003 – 2006).
 - Coordinated with stakeholders to bring over 20 new features into Vodafone Live! This principally required communication, including travel to Newbury, UK or Dusseldorf, DE.
 - Wrote Architectural and Design Documentation.
 - Used Struts and J2EE on JBoss to generate VCML which is then translated into (X)HTML depending on device class.

Technical Lead, Evant, Inc., San Francisco, CA 9/12/2001 – 9/5/2003

- Utilized **Java**, **Swing**, **XML**, and **Web Start** to develop thick client for the Demand Planning and Replenishment (DPR) product. Adopted the **XP** development methodology during development using 3 week cycles and **Junit** as an automated test platform.
- Developed interface modules in **PL/SQL** that facilitated data transfers to and from the DPR **Oracle** database. Performed timing runs and benchmarking to pinpoint potential performance bottlenecks. Improved performance through SQL performance tuning, bulk insert/updates, and multi-threading techniques. Also developed automated tests to maintain code quality and minimize regressions.
- Interfaced with the Evant Customer Support and directly with Evant customers to provide engineering solutions to customer issues related to the entire product. This enabled me to utilize my technical and functional knowledge of the entire product towards the goal of providing excellent customer service and satisfaction.

Technical Lead - Cygent Tools Group, Cygent, Inc., San Francisco, CA 3/20/2000 – 5/31/2001

- Developed client/server tools to facilitate configuration of Cygent products. Resulting products reduced implementation time of Cygent-based solutions at customer sites by half.
- Development responsibilities included: Java Application development utilizing Swing, creating database to Java object mappings with **Toplink**, EJB development and deployment on **BEA Weblogic** and IBM **Websphere**, defining XML tags and creating Java objects with SAX and DOM parsers, database schema architecture and optimization on Oracle, JSP and Servlet analysis.
- Worked with upper management to define a mission plan for the group and held discussions with marketing to drive and refine requirements. Utilized project management and software processing engineering skills to streamline the development process.
- Active participation in **mentoring** of junior engineers in addition to functional and detailed design, development, code review, and test of software.

Developer Manager - Web Client, Peoplesoft, Inc., Pleasanton, CA 7/14/97 - 3/20/2000

- Assumed ownership of Peoplesoft Web Client product. Developed new features and solved customer production problems using Java, JFC/Swing, Visual Cafe and BEA Jolt/Tuxedo.
- Worked on globalization features for the Peoplesoft Windows Client product utilizing Visual C++/MFC and Unicode.
- Both Web and Windows Client products required administration knowledge of Oracle, Sybase, Informix, and SQLServer.
- Completed courses in PeopleSoft related products: PeopleTools, PeopleCode, HR/Finance Applications

Hobbies

Sailing, tennis, soccer, classical music (violin, piano), video editing, travel.

