

Margaret Mitchell

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SUMMARY: Over 10 years of experience, using a combination of coding, research and data science skills to solve the challenges of optimizing for more than 20 billion advertising bid requests and over a billion impressions a day.

EXPERIENCE

Software Engineer (September 7 2006 – December 15 2016), Advertising.com(AOL), Palo Alto, CA

Tech lead and software developer (C++ and MATLAB) in the Research and Development team. Led projects to optimize targeting algorithms for display, search and mobile advertising.

- Hybrid of skills in both research and software development.
- Various data science tasks, working with big data.
- Responsible for the code comprising the company's main ad performance prediction algorithm.
- Responsible for vision, requirements, and managing execution of projects for both research and infrastructure.
- Designed and created software for both research and infrastructure purposes, frequently in exacting situations where appropriate resources and tools were unavailable.
- Routinely save the team time on projects by finding bugs that others have missed. Frequently called upon when colleagues want a "second pair of eyes" to ensure a piece of work is correct.
- Introduced unit testing to research team and brought it into the team's standard practices. Created a culture of software development practices within research team, co-creator of MATLAB coding standards for the office.

Assistant Webmaster, (Jan 1 2005 – Dec 31 2006), iliveinsydney.com, Freelance

Management, design, content creation and publicity.

Teaching Assistant, Associate Lecturer, (February 1 1999 – May 31 2005), University of New South Wales, Sydney, Australia

Department of Computing, Associate Lecturer for 4 years.

- Led teams of up to 20 teaching assistants for Computing Courses.
- Lectures and presentations to audiences of up to 250.

Software Developer and Consultant, (October 1 2000 – January 31 2004), ConceptM, Sydney, Australia

Coding (in C) a prototype mobile payment device.

EDUCATION

Ph.D. Computer Science, Macquarie University, Sydney, Australia, 2005.

Thesis Title: On the Complexity of Creating Vertex Series Parallel Graphs from Directed Acyclic Graphs.

BSc Hons (1st Class), Computer Science, University of New South Wales, Australia, 1998.

BSc (Computer Science and Pure Mathematics majors), University of Sydney, Australia, 1997.

SKILLS AND BACKGROUND

- Computing background: Algorithms, coding, graph theory, computational complexity, machine learning.
- Strong problem solving skills, strong ability to understand concepts in depth.
- Cloudera Certified Hadoop Developer 2010.
- Used Amazon Web Services.
- Programming Languages:
 - Proficient: C++
 - Working knowledge: Unix shell, MATLAB, Perl, PHP, Haskell, Pascal, Prolog.
- Additional coursework:
 - Machine Learning, Stanford University, Coursera, 2012.
 - Statistics, Princeton University, Coursera, 2012.
- Working knowledge of SQL.
- Operating systems used: Linux, Windows, OS X.
- Excellent presentation, communication, teaching and interpersonal skills. Demonstrated by presentations to audiences of up to 1000.

SCHOLARSHIPS AND AWARDS

- Australian Postgraduate Award, 1998 – 2001.
- Fellowship for the Automated Reasoning Project Logic Summer School, Australian National University, 1997.
- Dean's list for Academic Achievement, University of Sydney, 1996.
- Vacation Scholarship, Department of Computer Science, University of Sydney, 1996.
- Vacation Scholarship, Department of Mathematics, Macquarie University, 1995.
- Member of Golden Key National Honour Society for Outstanding Scholastic Achievement and Excellence, Australia.