RACHEL GREY

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EDUCATION

May 1999	Massachusetts Institute of Technology, Cambridge, MA M.S. and B.S., Mechanical Engineering (5.0/5.0 graduate GPA)
Nov 2003	Dale Carnegie Business and Leadership Course
Sept 2004	Dale Carnegie Business and Leadership Course – team leader
Nov 2004	Sun Certified Programmer for Java 2 Platform 1.4
June 2007	Certified Personal Trainer -- National Academy of Sports Medicine

SKILLS

Java, C++, JavaScript, CSS, bash, SQL, XML, Java Swing, Oracle 10g, HTML, J2EE, MFC.
Especially strong documentation and communication skills.

EXPERIENCE

October 2007 – present

Software Engineer, Google (Cambridge, MA)

Image Search (Dec 2008 – present)

- Currently updating the landing page for Google Image Search, but details are confidential until released. Work is primarily in C++, Javascript and CSS in a Linux development environment.

Blogger (Oct 2007 – Dec 2008)

As an engineer on Blogger I implemented fully internationalized, scalable Blogger features, and participated in pager duty to keep the servers running and to respond to external DOS attacks. Blogger is believed to be the largest blogging platform in the world; it operates in 40 languages (including RTL) in all major browsers, is compliant with W3C standards, and is written primarily in Java with heavy JavaScript use and a proprietary Google back end.

- Worked with the team's continuous build, submission queue infrastructure, and release process to get the Blogger project internally Test Certified (an indication of project maturity within Google). Primary owner of the continuous build for 10 months.
- Designed, implemented, and launched the Reactions feature, which enables customizable one-click reader feedback on blog posts. This was a major effort, in Java and JavaScript with Linux as a development environment, involving a new interface between Blogger and an internal Google annotations server. After six weeks in the field this had 1/3 as many users as there were commenters. A related sub-project also added the ability to add a "star ratings" feature to blog posts.
- Improved the messaging and usefulness of "blog not found" pages, creating a new workflow to sign up for a blogspot.com subdomain if the desired blog address is available.
- Provided the Blogger Support team with an internal tool for determining whether certain users could be passed on to the general Google account help, saving them approximately 30 support tickets per week.

July 2004 – Oct 2007

Application Developer 3, Oracle Retail via ProfitLogic acquisition (Cambridge, MA)

I worked on the Calculation Engine team, which was central to all ProfitLogic products and remained an important piece of Oracle Retail intellectual property after Oracle acquired

ProfitLogic in August, 2005. I implemented production-engineered optimization algorithms in support of the Oracle Retail markdown, allocation, and purchasing optimization products. I also developed internal tools for analysis and insight into the behavior of the optimization engine. Development was in Java and C++, deploying primarily to WebLogic and also by code drop to select customers. Target platform was Linux/Unix, running against Oracle databases, while development was largely in a Windows environment.

Oracle Retail (Aug 2005 – Oct 2007):

- Released a major optimization engine refactor, making it into a scalable and distributed system for use by ProfitLogic's flagship product. We doubled its rate of throughput, which allowed the business to target larger retailers as customers, and completely replaced 19,000 lines of Java and XSQL code with 8700 lines of new Java code. In addition, this refactor removed all dependencies of the pricing optimization on J2EE and WebLogic, allowing our customers to purchase fewer licences.
- Improved and documented an internal Java tool used by the analytic division of the company for analytic parameter testing using the optimization engine; improved both inter-team relations and the tool's output, so that the tool is now in regular use.
- Led investigation into integrating the core ProfitLogic optimization module with RPAS, a multidimensional database from another Oracle Retail acquisition; successfully completed a prototype integrated system with full documentation (in C++ on Windows). I worked on productizing a version of this until my departure.

ProfitLogic (July 2004 – Aug 2005):

- Headed up quality assurance for a major optimization engine release in fall ’04. This included development in Java of a new testing suite, which replaced a less flexible Python-based system and also measured code coverage of the tests for the first time.
- Developed a new RMI-based interface with new features for interactive use of the optimization engine as an RMI server, which previously had only run in batch mode in WebLogic. This was a major effort requiring cross-team collaboration, new Java and C++ code and significant reworking of our SQL data access layer, as well as analysis of the appropriateness of RMI for the effort.

June 1999 – July 2004 **Software Engineer 2, Charles River Analytics (Cambridge, MA)**

Developed artificial intelligence based tools for military decision support, primarily in C++ and Java, for Phase I and Phase II contracts under the Small Business Innovative Research program.

- Acted as lead software engineer on several military contracts, and for a long-term internal project in C++ and MFC from October 2000 through 2002.
- Significantly involved in design and evaluation of a belief network editor that was released commercially in fall of 2004. This work was primarily in Java, using the Swing GUI libraries.
- Wrote final reports, users’ manuals, and developer documentation; gave presentations to clients.
