

# MOHAMMAD USMAN AHMED

Address: 3561 Lorne Avenue, Apt. 22, Montreal, QC, Canada, H2X 2A4  
Phone: (514) 690-1694

<http://www.cs.mcgill.ca/~mahmed26>  
[mohammad.ahmed@mail.mcgill.ca](mailto:mohammad.ahmed@mail.mcgill.ca)

## OBJECTIVE

To join a software development team in a challenging work environment where I can utilize and further develop my skills in software engineering. *Starting July, 2008.*

## TECHNICAL SKILLS

**Strengths:** Java, C, ActionScript

**Familiar with:** AspectJ, UML, MS-Access, Subversion, Perforce, DevTrack, Macromedia Flash, GWT, MIPS32 Assembly, HTML, C++, Shell Scripting(bash, tcsh) , Scheme, Python, Eclipse, Windows 98/2000/XP, Unix/Linux

## EDUCATION

**Master of Science, Computer Science** **2007 – expected May 2009**  
McGill University, Montreal, Canada

**Bachelor of Science with Honours: Computer Science** **2003 – 2007**  
McGill University, Montreal, Canada **CGPA: 3.49/4.00**

**General Certificate of Education (Advanced Level)** **2001 – 2003**  
(Physics, Computing, Mathematics & Further Mathematics)  
Lahore College of Arts & Science, Lahore, Pakistan

- Student of the Year Award (2002 - 2003)
- Academic Excellence Award in Physics, Computing, and Mathematics (2002 - 2003)

**General Certificate of Education (Ordinary Level)** **1998 – 2001**  
(Mathematics, Physics, Chemistry, Islamic Studies, Pakistan Studies, Urdu, English)  
Beaconhouse School System, Lahore, Pakistan

## RELATED WORK EXPERIENCE

**Software Engineer 1** **May 2007 – August 2007**  
*Electronic Arts Canada*

- Developed Front End User Interface (Menu/configuration Screens) for FIFA 08.
- Was one of two `Point of Contact` (POC - *team lead*) between Central Front End team and the FIFA Front End team.
- Was responsible for the entire Front End User Interface from our Central Front End team for the FIFA`08 DEMO version.

**Software Engineer Intern** **January 2006 – August 2006**  
*Electronic Arts Canada*

- Developed Front End User Interface (Menu/configuration Screens) for FIFA 07 using ActionScript, Macromedia Flash and C++.
- Designed APIs for interaction between the Front End Flash and C++ back end.
- Tuned the entire Front End User Interface. This involved understanding and modifying other people's code to tune the look and functionality of all the user interface screens developed.
- Became familiar with Perforce (for version control) and DevTrack for QA bug-tracking.

## PROJECTS

*See website for more details and Project DEMOs.*

### **Developed a GoogleMaps tool in Java**

**September 2007 – December 2007**

In this project I worked in a group of 2 to integrate 'common-off-the-shelf' components by writing our own 'glue-code' to experiment on architectural-mismatch. The components used were, an HTML-parser, the GoogleWebToolkit, and the Montreal Bus Schedules website (stm.info). The tool, BusTracker, reads the schedule from the website and shows the current locations of buses and the route of a given bus-route on a Google Map updating dynamically (simulated using the schedules from the website).

### **Modified an Eclipse plug-in for extensibility in Java**

**January 2007 – April 2007**

This Eclipse plug-in was an individual project on extensibility. It was mainly a reverse-engineering effort in understanding the detailed workings of an existing Eclipse plug-in, called ConcernMapper, and then modifying it into an extensible version where all Java-dependencies of the plug-in were removed to provide extensibility to other languages and were then added on as an extended plug-in specifically for Java.

### **Developed a Turn-based conquest Game in Java**

**January 2007 – April 2007**

In this project we developed, in a team of 5, a turn-based strategic conquest game that is played over the network. This software engineering project provided experience with the complete requirements analysis, design, and development, and integration of the individual parts of game logic, graphical user interface, and network communications in the game.

### **Developed a Compiler in Java**

**September 2006 – December 2006**

In this project I worked in a group of 2 to develop a compiler in Java that compiled the language WIG (Web Interface Generator) which is a subset of 'bigwig', a high-level programming language for developing interactive Web services, into a CGI-script in C++ to run on the web.

### **Developed an AI agent for a BoardGame**

**September 2005 – December 2005**

Developed an Artificial Intelligence Agent in Java, using the techniques of Alpha-Beta Pruning and the MiniMax Algorithm for the boardgame Breakthrough, that competed in a tournament at the end of the course.

### **Application Layer Network ( C )**

**September 2005 – December 2005**

Created an application-aware network and using a virtual network toolkit, GINI, recently developed at McGill, tried out different ways in which a network can accelerate Application Layer Network architecture.

### **Game Simulator Development (Java)**

**January 2005 – April 2005**

Course Project for implementing the latest programming techniques. Developed a game simulator in Java using Object Oriented programming techniques and created an AI player for the game that won 2nd place in the class competition. OO Design & Development using UML and Java. Used Subversion as the Version Control software and became familiar with the use of Apache Ant and JUnit testing.

### **Database Project in MS Access**

**2002 – 2003**

Final Project for Advanced-Level Computing: "Student Database and Academic Records"  
Designed and developed a database for managing Admissions and Student Records  
Client: Lahore College of Arts and Sciences

## OTHER WORK EXPERIENCE

### **Sales Representative**

**August 2004**

Superior Energy Management – Natural Gas Marketer  
- Learned persistence and improved communication skills

## EXTRA-CURRICULAR AND VOLUNTEER EXPERIENCE

- **Member of the McGill Engineering Career Centre's (MECC) Student Volunteer Committee** **September 2004 – April 2005**
  - Worked on the Newsletter Team to publish the MECC Newsletters
  - Assist retired engineers to promote career education and find summer jobs for Engineering & Computer Science students
- **Science Representative** **2002 – 2003**  
Student Council of Lahore College of Arts and Sciences
- **Peer Counselor** **2002 – 2003**  
Mathematics & Computing (Lahore College of Arts and Sciences)

## AWARDS

- **Dean's Honour List** **2003 – 2004**  
McGill University
- **Member of the Golden Key International Honour Society** **2004 – Present**  
McGill Chapter
- **Student of the Year** **2002 – 2003**  
Lahore College of Arts & Sciences, 2003
- **Certificate of Distinction in Euclid Mathematics Contest** **2003**  
University of Waterloo
- **Roll of Honour** **2002**  
National Physics Talent Contest  
Organized by Pakistan Atomic Energy Commission

## ACTIVITIES

- President of the Ahmadiyya Muslim Students Association** **2005 – Present**
- Member of the McGill Toastmasters Club** **2004 – 2005**
- Member of the McGill Outing Club** **2003 – 2007**
- Member of the McGill Kendo(Martial Arts) Club** **2003 – 2004**
- Member of the IBEX Adventurers Club of Pakistan** **2002 - 2003**  
Awarded 'Best Trekker' in a Hiking and Trail-Cleaning Expedition to a glaciated pass, Gondogoro-La (18600 ft.) and the Base-Camp of K2, the world's 2nd Highest Peak (16500 ft.)  
July 2002

## INTERESTS

Other interests include reading biographies, learning history, and traveling.