

# CURRICULUM VITAE

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Mauricio Munera Sanchez

**Name:** Mauricio Múnera Sánchez

**Profession:** Computer Science / Systems Engineer (five and a half years study program).  
Second year System Dynamics Master Student at the University of Bergen

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## **PROFESSIONAL SKILLS:**

- Programming skills in: JAVA, C++, ActionScript (Adobe Flash), JavaScript, SQL (Mysql, Oracle), PHP and Assembler, FLEX y Assembler.
- Geographical information system programming and ArcGIS Servers administration.
- Web programming and designing.
- Designing, Configuring and administration of TCP/IP Networks.
- System Dynamics modeling and programming.
- Installation and administration of server technologies including: HTTP servers, email servers, FTP and SFTP servers.
- Project management.
- Software architecture modeling using UML and software building process using RUP.
- Graphic designing and animation using adobe tools.
- Video production.
- I have Skills for computer reparation and maintaining.
- Microprocessors programming using PICs.

## AWARDS

- **2008** Best Bachelor thesis in Computer Science, GEMIS award winner. The award is given by INTERGRUPO, one of the biggest software developing company in South America. EAFIT University Spring 2008.
- **2007** Honorable Mention to my Computer Science thesis “Implementation of an interactive comic, a grammar module and a software for exercises administration supported on Moodle and the SCORM standard for content developing for a Spanish course as a foreign language“, EAFIT University Autumn 2007.
- **2003** GEMIS award winner in the digital control category, EAFIT University.
- **2001** GEMIS award winner in the programming projects category, EAFIT University.
- **2001** Approval as panelist in the RIBIE congress, Chile 2000.
- **2001** Finalist in the Global Junior Challenger, Rome, with the article “CATICIS puertas abiertas al conocimiento”.
- **2000** National winner of the educational informatics Colombian award, giving by the ministry of education at the Colombian educational informatics congress (RIBIE-COL).
- **1998** Honor mention given by the CONEXIONES project for supporting the development of their educational model.

## PUBLICATIONS

- Poster, Antonijevic, Virginia. Munera, Mauricio. GIS tools to support climate change adaptation NORKLIMA Researcher Conference, 19-20 October 2009, Bergen.
- “Interacting with maps and information: towards to a new approach to adaptation” (Virginia Antonijevic and Mauricio Munera) Presentation for the “Climate Change Adaptation workshop” Norrköping, Suecia
- Verbal Aspect Tutor (VAT), IIº Congreso Nacional de ANPE Norge, Den norske spansk lærerforeningen, Multiculturalidad y norma policéntrica: Aplicaciones en el aula de ELE, Bergen September 26 and 27, 2008.  
Internacional article: RedELE (Red electrónica de didáctica del español como lengua extranjera, Ministerio de Educación y Ciencia. España, ISSN 1571-4677, NIPO 651-08-021-1.
- Munera, Mauricio; Congote, John Edgar; Correa, Francisco J. “Gnesting applied to letter cutting (Gnesting Aplicado al Corte del Cuero)” TECNOCUERO, Iberoamerican congress of technology and innovation for leather and footwear. SENA Footwear Center and Leather Manufacturing. Noviembre 7, 8 de 2007. Publicaciones, Ponencias, Patentes y Registros – 2007 – ISSN 1692-0694. Dirección De Investigación Y Docencia, Universidad Eafit, Medellín. Abril de 2008. Documento 62 – 042008.
- Munera, Mauricio; “Implementation of an interactive comic, a grammar module and a software for exercises administration supported on Moodle and the SCORM standard for content developing for a Spanish course as foreign language“, Computer Science thesis, EAFIT University Autumn 2007.

- Munera, Mauricio “CATICIS puertas abiertas al conocimiento”, Poster, RIBIE 2000, Chile 2000. Proceedings in CD-ROM.  
<http://www.c5.cl/ieinvestiga/actas/ribie2000/posters/266/index.htm>
- MÚNERA SÁNCHEZ Mauricio, Catíci, Puertas Abiertas al Conocimiento, "Award winning of the Educational computer nacional award Men-RibieCol 2000", Informática Educativa Vol 13, No, 2, 2000 UNIANDES - LIDIE pp 229-235. <http://www.colombiaaprende.edu.co/html/mediateca/1607/article-128202.html>

## EDUCATION

- Second year master student in system dynamics, University of Bergen, Norway. From 2007 to current year.
- Computer Science Engineer (Systems Engineer) graduated with honors (five and a half year study program), EAFIT University, Medellín, Colombia. From 2001 to 2007
- Internship at the University of Bergen, research project for creating a virtual Spanish course, University of Bergen, Norway, 2005-2006.
- High School with science emphasis, “San Carlos de la Salle” Institute, Medellín, Colombia.

## WORKING EXPERIENCE

**2009 (Jun) to current** Department's Engineer for the department of geography, University of Bergen.

I'm working for the project: Potentials and Limitations for Adaptation in Norway (PLAN)". I am responsible for developing the Web GIS prototypes for supporting climate change adaptation in Norway.

I am also applying system dynamic models and tool to support the understanding of climate change processes.

**2010 (Feb)** Consultant for the System Dynamics group at the university of Bergen.

I designed and created two online System Dynamic simulators in ActionScript for a research project in System Dynamics which purpose is to introduce basic concepts of physic using System Dynamics.

**2009 (Nov)** Consultant for the Millennium institute in Boston.

I designed and developed their e-learning System for their courses in System Dynamics and National Development.

They system is hosted at:

<http://millenniuminstitute.net/course>

**2005 to current year**

Research assistant at the project: “interactive Spanish” (Interaktivspansk) at the University of Bergen in Norway. I am responsible for the application of new e-learning techniques to language teaching. I designed and developed the architecture that supports the virtual course and the coordinator of IT for the project. The main technologies that I use are: SCORM, JAVA programming, PHP programming, ActionScript programming, XML documents, RSS, integration of authentication modules (LDAP), Learning objects construction, Adobe tools for graphic designing, Flash animation and programming, audio and video streaming, web server technologies as tomcat and apache, databases designing and administration (Mysql) and tools for video edition as FinalCut.

Assistant at the administration and organization science institute at University of Bergen. I created and support the intranet that is used by the research groups.

I have been working in independent project for interactive learning environments in system dynamics.  
(<http://blend.openmodeling.net>)

**2006**

Substitute teacher for the course: Operative Systems at the EAFIT University.

**2002 - 2005**

Research assistant at R&D educational informatics group at the EAFIT university. I participated in diverse projects such as: National expansion of the CONEXIONES project, the COCOMA project (collaborative educational project for school age people), the construction of the main application

for the technological park of Antioquia, which was developed using JAVA (JSP) and Oracle8i.

**2004**

Professor for the improvement in technological skills training program for professors at the EAFIT University.

**2003 - 2005**

Designing and implementation of MEGATIENDA. It was a family company for computers selling, computer parts and periphery devices selling and computer reparation.

**2001 – 2002**

Teaching assistant for computer science courses at the EAFIT University.

**1997 – 2002**

Professor for summer training programs in diverse computer skills for kids at the EAFIT University.

## **SPORTS AND HOBBIES**

- I practice Capoeira. Capoeira is an acrobatic martial art from Brazil.
- I am an open water level diver certified by PADI.

## PERSONAL REFERENCES

### Professional references

**Ana Beatriz Chiquito.** Professor in the institute of foreign languages (Institutt for fremmedspråk) and Leder of the project "InteraktivSpansk". University of Bergen, Norway.

**Telephone:** (+47) 55 58 84 46

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**Ivar Bleiklie.** Professor and Leader in the institute of administration and organizational science (Institutt for administrasjon og organisasjonsvitenskap). University of Bergen, Norway.

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**Carlos Mario Loaiza,** System EGINEER, NERA,

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**Claudia Maria Zea Restrepo.** Director of the "Colombia Aprende", a portal of the ministry of education in Colombia. Leader of the research group in educational informatics at EAFIT University, Medellín, Colombia.

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**Gerardo Arauzo.** System Design Engineer, NERA.

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**Juan Guillermo Lalinde Pulido.** Professor at the department of systems engineering at EAFIT University, Medellín, Colombia.

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## **Family references**

**Michelle Garshol.**

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**Angela Maria Sánchez Gómez** Financial and Administrative Assistant, Direction of research and teaching, EAFIT University, Medellín, Colombia.

**Telephone:** (+57) (4) 2619371

## **SPOKEN LANGUAGES:**

(\*Notation: According to the Common European Framework of Reference for Languages)

SPANISH: Mother Tongue.

ENGLISH: Listening/Speaking: C2 Reading: C2 Writing: C2

NORWEGIAN: Listening/Speaking: C1 Reading: C1 Writing: C1, (I finished all Norwegian courses at the University of Bergen).

## **ABOUT ME:**

I am Mauricio Munera. I am a computer science / systems engineer. I obtained my engineer degree at the EAFIT University, which is one of the best private universities in Colombia. My curriculum corresponds with a five and a half year program. I graduated with honors and received a price for the best thesis in Computer science / system engineering.

After finishing my engineer education, I was admitted at the University of Bergen to the Master program in System Dynamics. I am now on my second master year. My master thesis is about realistic simulator programming and interactive learning environments to teach how to understand second order systems.

I have several skills within computer science, Geographical Information Systems (GIS) and e-learning areas, acquired during my formal education and my working experience. I performed as a teacher assistant for several courses in programming and other computer science topics, since I started my studies at the EAFIT University.

I worked as a research assistant during many years for a prestigious e-learning research group at the EAFIT University in Colombia called "infoedu" (Línea de investigación y desarrollo en informática educativa). Infoedu has important projects that are the basis of the new technology plans at the ministry of education in Colombia.

As a research assistant I was assigned to tasks that involved: programming, server administration, databases, graphic design, media development, knowledge Management, networks and hardware maintaining. Some of the technologies that I have been using are: Java (including Java Servlets Pages (JSP)), PHP, C++ and Action Script (Flash programming), Apache web server, Tomcat web server, mail servers, samba, LCMS Moodle administration and customization, Wordpress customization and administration, Moodle, Photoshop, Illustrator, Fireworks, Flash, Final Cut, Oracle, Mysql, CmapTools, SCORM and TCP/IP configuration and administration.

During my internship I was invited to the university of Bergen to join the project "Interaktivspansk" as a programmer. Interaktivspansk is an e-learning project that

develops resources for a Spanish course, one of the more attractive products developed is the “LibroELE” which consist of an e-learning course divided into several modules with aggregation of learning objects (LO) for distance Spanish teaching. I currently work for the University of Bergen as a programmer for the Institute of Foreign Languages (Institutt for Fremmedspråk) and the Institute of Administration and Organizational Science (Institutt for Administrasjon og Organisasjonsvitenskap).

I work as department’s engineer in the geography institute at the university of Bergen for the project: “Potentials of and Limitations of Adaptation in Norway” (PLAN). I am developing geographical information System prototypes (GIS) using technologies as FLEX, PHP, Java, Postgres, Mysql, ArcGIS Server, Blender for 3D modeling and others.

I also perform as consultant for different project related to E-learning, system dynamics and computer science.

I am a responsible person and committed to his work. I enjoy learning new things, and I am therefore in a constant learning process. I have skills for working in a team, gained by my work experience in research projects with interdisciplinary groups.



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**Mauricio Munera**