

Objective

Further explore my Artificial Intelligence and natural language data processing ideas through collaboration with a team of bright and motivated people in an innovative software company.

Personal Information

Name: Alejandro
Surname: Barrera García-Orea
Address: Madrid, Spain, Europe
Citizenship: Spanish
Visa status: None (Had F-1 US visa status during UC Berkeley Summer Courses)
Webpage: <http://www.neurosecurity.com>
LinkedIn Profile: <http://www.linkedin.com/in/abarrera>

Education

- **UC Berkeley Summer Sessions.** California. USA. Courses: *The Mind and Language, Marketing* (Walter A. Haas School of Business). (June 2006 – August 2006)
- **Master of Science Equivalent in Computer Science.** Polytechnic School of Madrid (<http://www.fi.upm.es>). Madrid, Spain. (2005 - 2007)
Note: Master thesis: *A Neocortical Artificial Neural Network Architecture for Network Intrusion Detection.*
- **Bachelor of Science Equivalent in Computer Science.** Polytechnic School of Madrid (<http://www.fi.upm.es>). Madrid, Spain. (2005)

Grants and Fellowships

- **Vodafone Foundation and Polytechnic School of Madrid** grant for UC Berkeley Summer Sessions 2006. Total: 6000€

Employment Experience

- **Computer Adviser at Ilustre Colegio Oficial de Geólogos** (ICOG, Spanish National Geological Association) (Educational Institution; 11-50 employees; Environmental Services industry). Madrid, Spain. **2002 – Present.**
Main Software Developer for their internal management system.

- Security analysis and pentesting advice.
- Website designs and implementation advice.
- Malware prevention and detection instruction to ICOG workers.
- **Software Developer at Biosfera XXI Estudios Ambientales S.L.** (Privately Held; 1-10 employees; Environmental Services industry). Madrid, Spain. **July 2005 – Present.**
Main Software Developer for the GIS-CET tool for the Spanish Department of Defense.
Main Software Developer for the CENP project for the Spanish Environmental Ministry.
 - Crystal Reports developments.
 - Visual Basic 6 GUI designs.
 - Relational Database designs.
 - Web application designs.
 - Software specifications and data models.
- **R&D Software Engineering at Irongate S.L.** (Privately Held; 11-50 employees; Computer & Network Security industry). (http://www.iron-gate.net/home/home.php?idmc=_eng). Madrid, Spain. **August 2004 – May 2006.**
 - Software specification, analysis and design.
 - Software integration into embedded platforms.
 - Software Documentation.
 - Software Quality Testing.
 - XML, DTD, schemas developments.
 - Embedded Database developments.
- **Extracurricular class leader at Bernadette school.** Computer introduction to children between 8 and 10 years old. (<http://www.colegiobernadette.com>). Madrid, Spain. **November 2003 - June 2004.**
- **Director and keynote speaker of the C Programming Language Workshop** given by the Computer Club of the Computer Science Faculty (CITFI). Polytechnic School of Madrid. Spain. **March 2004.**
- **Speaker in the first FIST** (First Improvised Security Testing Conference) **Conference** in Madrid. Title: “*Understanding Advanced Buffer Overflows*”. (<http://www.fistconference.org>). Madrid, Spain. **July 2003.**
- **Coorganizer of the first FIST** (First Improvised Security Testing Conference) **Conference** in Madrid. (<http://www.fistconference.org/faqen.php#pg1>). Madrid, Spain. **July 2003.**
- **Director and keynote speaker of the C Programming Language Workshop** given by the Computer Club of the Computer Science Faculty (CITFI). Polytechnic School of Madrid. Spain. **March 2003.**
- **Director and speaker for the Computer Security Course** given by the Computer Club of the Computer Science Faculty (CITFI). Polytechnic School of Madrid. Spain. **March 2003.**

- **Network Administrator Training** (Novell, WinNT, Win98) at “El Correo Gallego” Newspaper. (Privately Held; 200-500 employees;). Santiago de Compostela, Spain.
August 2000.

Professional Qualifications

- **Programming Languages:** Ada, Pascal, C/C++, Haskell, x86 asm, Visual Basic 6, Java.
- **Scripting Languages:** Python, Perl.
- **Web Languages:** HTML, DHTML, CSS, PHP, Javascript, XML, Ajax, Schemas, DTD.
- **Others:** automake, Crystal Reports.
- Wide knowledge in **Artificial Intelligence fields:** Artificial Neural Networks, Expert Systems, TMS, Frames, Scripts, Strips, Fuzzy Logic, Ontologies/taxonomies, Search algorithms, Bayesian networks, Natural Language Processing.
- Experience with **Natural Language Processing** python toolkit NLTK (Natural Language Toolkit).
- Advanced knowledge of Windows 9x, 2000, XP / DOS, Unix / Linux.
- Advanced knowledge of computer networks. (topology, configuration, protocols, inner workings).
- Advanced knowledge of computer security (UNIX / Linux / NT / W2K / XP environments).
 - Expertise in IDS (Intrusion Detection Systems), Computer security pentesting, Firewalls, Security policies.
- Intermediate knowledge of Linux Kernel Programming (2.4.x y 2.6.x).

Conferences and Seminars

- September 2006. **9th Granada Seminar on Computational Physics**. Focus: Computational and Mathematical Modeling of Cooperative Behavior in Neural Systems. Granada University. (Facultad de Ciencias), Granada. Spain.
- April 2006. Settling of **Venus Express** into its final orbit. **European Space Agency (ESA)**. . Satellite Tracking Station, Villafranca del Castillo, Spain.
- Visit to the **Astrobiology Center (CAB)** of **CSIC-INTA** (Associated to the NASA Astrobiology Institute). Invited by the researcher Jesús Martínez Frías and the director Juan Pérez Mercader.
- September 2005. Computer Forensics Conference organized by **esCERT** and **esCERT-UPC**. Madrid, Spain. (Instituto de Estudios Fiscales Auditorum).
- October 2003. **FIST** (First Improvised Security Testing Conference) Conference. Madrid, Spain.

- September 2003. **FIST** (First Improvised Security Testing Conference) Conference. Madrid, Spain.
- July 2003. **FIST** (First Improvised Security Testing Conference) Conference. Madrid, Spain.
- April 2003. **FIST** (First Improvised Security Testing Conference) Conference. Madrid, Spain.
- October 2002. Conference about New Network Threads organized by **Internet Security Systems**. Madrid, Spain. (Winthertur Auditorium).
- 2001. Presentation of the new computer security products of **Internet Security Systems (ISS)**. Madrid, Spain. (Hotel Castellana).

Professional Positions

- **Computer Advisor** for the **Ilustre Colegio Oficial de Geólogos** (ICOG, Spanish National Geological Association). 2002 - Present.
- **President** of the **Computer Club of the Computer Science Faculty**. Polytechnic School of Madrid (**CITFI**). September 2002 - September 2004.

Languages

Language	Written Level	Spoken Level	Reading Level
<i>English</i>	High	High	High
<i>German</i>	Basic	Basic	Basic