

## MAURICIO CARNEIRO

(781) 475-3747

192 Kennedy dr APT 308, Malden, MA 02148

carneiro@gmail.com

### EDUCATION

#### Harvard University

*Ph.D. in Evolutionary Biology*

Cambridge, MA

expected june 2010

#### Oswaldo Cruz Research Institute

*M. Sc. in Molecular Biology*

Rio de Janeiro, Brazil

2005

#### Pontifical Catholic University

*B.Sc. in Computer Engineering*

Rio de Janeiro, Brazil

2003

### AWARDS

#### Harvard University

*Distinction in Teaching Award*

Cambridge, MA

june 2010

#### ACM International Collegiate Programming Contest

*Programming Excellence Award*

Beverly Hills, CA

2003

*South American Champion*

2003

*2nd Place of Brazil*

2002

#### Pontifical Catholic University

*Best Mathematics Software Award*

Rio de Janeiro, Brazil

1998

### PROFESSIONAL EXPERIENCE

#### M1nd Corporation

*Consultant for New Technologies*

Rio de Janeiro, Brazil

November 2004 - May 2006

- Coordinated a group of 50 beta testers.
- Conducted research on scientific projects to develop new products for the company.
- Coordinated the development of the first location based role-playing game in the world, Alien Revolt ([www.alienrevolt.com](http://www.alienrevolt.com)), released in may 2004 with extensive press coverage.
- Formulated the game structure, dynamics and mathematical framework; Managed the development team and assured the quality of every released item from developers and designers.

#### Getulio Vargas Foundation (FGV)

*Lead Game Developer*

Rio de Janeiro, Brazil

February 1998 - January 2000

- Coordinated a group of 11 developers, 12 designers and 3 musicians
- Designed and implemented the game physics, intelligence, sound and video.
- Lead the development team of the game "The Adventures of Taina", released march 2000
- Presented a lecture on the game engine technology to the Brazilian Ministry of Science and Technology.

#### Ebendinger Corporations

*Systems Support*

Rio de Janeiro, Brazil

June 1996 - November 1997

- Managed a database of over 80,000 physicians.
- Developed network and database scripts to add to the robustness of the database.
- Participated in the customer care team to users of the database.

## RESEARCH EXPERIENCE

### Harvard University

Cambridge, MA

Research Assistant in Computational Biology

September 2005 - present

- Developed research on statistical and computational models for evolution.
- Created a Markov Chain model to describe gene network development and evolution.
- Participated in the Drosophila Mauritiana genome annotation project.
- Developed a program to determine the evolutionary patterns of amino-acid secondary structure.

### Oswaldo Cruz Research Institute (FIOCRUZ)

Rio de Janeiro, Brazil

Junior Researcher in Molecular Epidemiology

March 2003 - August 2004

- Presented a lecture on the Evolutionary Basis of Public Health
- Studied Bioinformatics and Population Dynamics at the Pure and Applied Mathematics Institute of Rio de Janeiro (IMPA).
- Developed a research project on HIV Evolution which was awarded with a full scholarship from the UCSD Medical School at the XI HIV Dynamics and Evolution Workshop, in Sweden - May 2004.

### TECGRAF (PUC-RJ)

Rio de Janeiro, Brazil

Junior Researcher in Molecular Epidemiology

March 2000 - March 2003

- Developed research on multiplatform libraries and tools.
- Implemented 2 entire LUA libraries, 1 sound and Multimedia project and a user interface toolkit.

## TEACHING EXPERIENCE

### Harvard University

Cambridge, MA

Modeling and Differential Equations (fall 06, 07, 08 and spring 2009), Intensive Introduction to Computer Science (summer 2008), Intensive Introduction to Data Structures (summer 2008), Dinosaurs and their Relatives (*teaching award* - spring 2008), Genetics, Genomics and Evolution (spring 2007)

### PUC-RJ, FIOCRUZ and Technology & Training

Rio de Janeiro, Brasil

Advanced Topics in Algorithms (2003), Interactive Computer Graphics (2001), Data Structures (2000-2001), Evolutionary Basis of Public Health (2003), Game Development (2004).

## LEADERSHIP EXPERIENCE

### Harvard University Graduate Soccer Team

Cambridge, MA

GSAS and Dudley Soccer Teams Captain

2006 - present

### Harvard Organization for Brazilian Leadership and Entrepreneurship

Cambridge, MA

Co-Founder and Vice-President

2008 - present

## SUMMER COURSES

### University of Washington

Seattle, WA

Summer Institute in Statistical Genetics

2006 and 2007

### Pure and Applied Mathematics Institute (IMPA)

Rio de Janeiro, Brazil

International Workshop in Biomathematics

2004

## SELECTED PUBLICATIONS

*Analysis of the Molecular Clock Hypothesis for the Brazilian HIV-I Subtype*

In Proceedings of the 11th International Workshop on HIV Dynamics and Evolution, April 2004

Carneiro, M. O.; Pinto, M.; Struchiner, C. J.