### Raul Peña

# 621 North Maple St. Alton TX, 78573 (956) 424-5883

#### nb-raul@live.com

URL: http://self-assembly.net/rpena/

**Education:** Currently at University of Texas Pan-American (UTPA), Edinburg TX

Computer Science Major with Math Minor Anticipated Graduation Date: May 2012

GPA: 3.89

#### **Related Coursework:**

Theoretical Foundations of Computation

Computer Networks Systems Programming
Artificial Intelligence Software Engineering

Programming Languages Algorithms & Data Structures
Object Oriented Programming in Java Several courses using C++

Computer Architecture and Assembly Programming Programming in the Unix/Linux Environment

Linear Algebra Discrete Math

Calculus I, II Probability and Statistics

**Differential Equations** 

**Research:** Algorithmic DNA self-assembly. More specifically, I am working on algorithms for the modeling of self-assembling DNA tiles for efficient constructions.

Publications: UTPA HESTEC Poster: "Vector Generation for Self-Assembly Compatibility Matrices."

Work University of Texas Pan-American

**Experience:** Edinburg, TX

August 2011 – Present

#### **Research Assistant**

Working on solving open problems in theoretical computer science, and developing software to help with research projects.

123 Signs and Designs

Mission, TX

September 2006 – January 2009

#### **Assistant/Record Keeper**

Was responsible for keeping records of transactions and expenses, and dealt with customer

support and sales.

**Activities:** Member of the Association for Computing Machinery (ACM) local chapter at UTPA.

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**UTPA ACM Game development team leader:** Working with a group of students to develop a fairly large game project to facilitate the learning of new technologies, and to introduce the less experienced programmers to game programming.

#### **Related Skills:**

- Programming Experience: Windows and Unix/Linux Environment
   C, C++, Java, PHP, C#, SCHEME, HTML, CSS, JavaScript, AJAX, and MYSQL
- Web development:

Experience in full design and implementation of web pages, including work on server side scripting and content management systems.

- Software Skills:
  - Autodesk 3DS Max, Adobe Photoshop, Microsoft Word, Excel, Access, PowerPoint
- Languages: Bilingual in English and Spanish (speak, read, write)