## **ANTHONY BAHADIR LOPEZ**

1404 5th Ave San Diego CA • 619-847-1452 • abl012@ucsd.edu

| Education              | University of California - San Diego, La Jolla, CA Expecting Bachelors in Science in Computer Engineering, June 2015 Major Upper Division GPA: 3.4 Overall GPA: 3.3   |   |
|------------------------|---|---|
| Research<br>Experience | Undergraduate Researcher at UC Los Angeles  Adviser: Dr. Miodrag Potkonjak  Conducted research in the lab of Dr. Miodrag Potkonjak for 10 weeks.  40-50 Hrs/ Week.  Applied existing logic mapping algorithm to create a program that simulated the development of a quick and minimal physical unclonable function (PUF) implementation for ISCAS-85 benchmark integrated circuit.  Prepared poster for conferences.   | 06/2014-09/2014<br>06/2013-09/2013  |
|                        | <ul> <li>Undergraduate Researcher at UC San Diego Adviser: Dr. Alex Orailoglu <ul> <li>Conducted research in Synergy Lab for ten weeks.</li> <li>15-20 Hrs. / Week.</li> <li>Explored the security protocol of ZigBee and determined possible attacks on a released ZigBee network implementation using a TI packet sniffer and KillerBee framework.</li> <li>Prepared Powerpoint and poster for conferences.</li> </ul> </li> </ul>  |   |
| Teaching<br>Experience | <ul> <li>Tutor for CSE 3: Fluency in Information Technology – Professor Susan Marx</li> <li>Materials taught in class are: Javascript, HTML, CSS, Microsoft Excel, and Alice.</li> <li>Tutor for CSE 11: Intro to Java Programming (Accelerated Pace) – Professor Greg Miranda</li> <li>Materials taught in class are: Java, Polymorphism, Encapsulation, Inheritance, Abstraction, Recursion, and Algorithms.</li> <li>Tutor for CSE 100: Advanced Data Structures (In C++) - Dr. Paul Kube</li> <li>Materials Taylor in class are: C++, Heaps, Trees (Binary, Treaps, Huffman, Taylor in Caster and Programmer in Communication (Page 1997).</li> </ul> | 03/2014 - 06/2014<br>07/2013-08/2013<br>and<br>03/2014-06/2014<br>01/2014-03/2014 |
|                        | Ternary, Red-Black, 2-3), Hashing, Compression and Decompression.  Tutor for CSE 140: Components and Design Techniques for Digital Systems – Dr. Alex Orailoglu  • Materials taught in class are: Boolean Logic, Digital Circuit Design, Timing Diagram Analysis, Flip Flops, Hamming Distance, Error Detection and Correction, Finite State Machines, and Combinational and Sequential Logic.  Tutor for CSE 140: Components and Design Techniques for Digital Systems – Dr. Rajesh Gupta  • Materials taught in class are: (see above).   | 09/2013-12/2013<br>08/2013-12/2013  |
| Internships            | San Diego Supercomputer Center CIPRES Science Gateway Intern  • Testing REST API services using different scripting languages such as Javascript and Perl.  Slithr Vehicles at Moxie Center  • Designing, creating, and testing controller centered on an Arduino with Bluetooth module that controls skateboard motor speed.   | 09/2014-Present   |
| Relevant<br>Courses    | <ul> <li>CSE 101: Design and Analysis of Algorithms</li> <li>CSE 105: Automata and Computability Theory</li> <li>CSE 123: Computer Networks</li> <li>CSE 127: Computer Security</li> <li>CSE 140/L: Components and Design Techniques for Digital Systems</li> <li>CSE 141/L: Introduction to Computer Architecture</li> <li>CSE 243A: Introduction to Synthesis Methodologies in VLSI CAD</li> <li>ECE 111: Advanced Digital Design Project</li> </ul>  |   |
| Programs               | <ul> <li>NACME (National Action Council for Minorities in Engineering) Scholar</li> <li>NACME scholars are financially and academically assisted as long as they are involved with research/internship and achieving a GPA of greater than 3.0.</li> </ul>  | 11/2013-Present   |

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|                         | UC LEADS (University of California - Leadership Excellence through Advanced DegreeS) Scholar  | 06/2013-Present                                      |
|-------------------------|---|--|
|                         | <ul> <li>Research program directed towards students in financial need that display<br/>academic excellence and are interested in achieving a PhD.</li> </ul>  |  |
|                         | NSF-CAMP (National Science Foundation – California Alliance for Minority Participation) Scholar   | 06/2013-Present                                      |
|                         | <ul> <li>Program at UC San Diego provides support and advancement opportunities<br/>to ethnically underrepresented students who are seeking bachelor's degrees<br/>in a Science, Technology, Engineering and Mathematics (STEM) field.</li> </ul>   |  |
|                         | <ul> <li>SPUR (Summer Program for Undergraduate Research)</li> <li>UC Los Angeles ten week summer research program that requires students to do research at a lab for at least 40 hours per week and to conduct a poster presentation to other students and faculty in the final week.</li> </ul> | 06/2014-09/2014                                      |
|                         | <ul> <li>STARS (Summer Training Academy for Research in the Sciences) Program</li> <li>Summer research program that requires students to attend a lab and conduct and present their research to other students and faculty.</li> </ul>  | 06/2013-09/2013                                      |
| Research<br>Conferences | Poster Presentation at SACNAS (Society for Advancement of Chicanos and Native Americans in Science) Conference at Los Angeles, California   | 10/18/2014   |
| and<br>Presentations    | Poster Presentation at UC Los Angeles SPUR Research Conference Oral Presentation at UC San Diego Undergraduate Research Conference Poster Presentation at UC LEADS Conference at UC Riverside Poster Presentation at SACNAS Conference at San Antonio,  | 10/27/2014<br>04/26/2014<br>04/22/2014<br>10/04/2013 |
|                         | Texas  Oral Presentation at STARS Research Conference at UC San  Diego  | 08/15/2013   |
| Awards                  | Walsh Chacon Scholarship  | 2014-Present   |
| 7                       | <ul> <li>3.0+ cum GPA demonstrating college-level academic, campus or community<br/>service/ leadership and who attended Toussaint Academy of the Arts and<br/>Sciences</li> </ul>  |  |
|                         | NACME Scholarship  Full-time, Latino, 2.8+ cum GPA, in engineering program  | 2013-Present   |
|                         | <ul> <li>SACNAS Travel Scholarship</li> <li>Requires recommendation form from a professor and pays for housing and</li> </ul>   | 2013   |
|                         | travel fees Provost's Honors  | 4 Quarters   |
|                         | <ul> <li>At least twelve graded units in a quarter and a min average GPA of 3.5</li> <li>International Baccalaureate (IB) Diploma at San Diego High School - Int'l<br/>Studies</li> </ul>   | 2011   |
|                         | <ul> <li>Diploma awarded to students who complete the rigorous and knowledge-<br/>rewarding IB program.</li> </ul>  | 0044   |
|                         | Salutatorian at San Diego High School – Int'l Studies   | 2011   |
| /olunteering/           | UCSD Badminton Intercollegiate Club   | 2011-Present   |
| Extra-<br>Curricular    | Attending practices and competition events. 10 Hrs. / Week.  Tzu Ching Volunteering Club  Tzu Ching Volunteering Club   | 2011-Present   |
|                         | <ul> <li>Volunteering for STEM tutoring services in a minority-populated area.</li> <li>Video Game Development Club</li> <li>Developed a small video game using Java and demonstrated it at end of</li> </ul>   | 2012-2013  |
|                         | season.  Sage Volunteer Tutor  Guiding students of non-computer science backgrounds to understand the   | 2012   |

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| Leadership | Elected Captain of UCSD Badminton Intercollegiate Club  Planned, prepared, executed budget, practice and event plans.15hrs/Week. | 2012-2013 |
|------------|--|-----------|
| Languages  | English: Native language   |           |
|            | Spanish: Intermediate Listener and Speaker, Advanced Reading and Writing   |           |
|            | Turkish: Basic Listener and Speaker  |           |