

# Angel Phillips

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**INTEREST** Embedded Systems, Computer Architecture, Digital Signal Processing, Digital Image Processing, Computer Vision, Digital Communications.

**EDUCATION** **Costa Rica Institute of Technology**, Cartago, Costa Rica.  
Graduate in Electronics Engineering. Feb 2008 – Jun 2014

**RESEARCH EXPERIENCE** **Costa Rica Institute of Technology**, Cartago, Costa Rica.  
Undergraduate Research Student, Signal and Image Processing Laboratory Feb 2014 – Jun 2014  
Professor Ing. Jorge Castro Godínez  
*Investigation into the relation with vision embedded and performance analysis of the video processor.*

**Costa Rica Institute of Technology**, Cartago, Costa Rica.  
Undergraduate Research Student, Research Center in Housing and Construction May 2013 – Nov 2013  
Professors M.B.A Giannina Ortiz Quesada and Ing. Francisco Navarro Henríquez, M.Sc., MBA.  
*Structural Monitoring in the bridges with optical sensors network.*

**ACADEMIC EXPERIENCE** **Graduation Project**, Implementation and evaluation of an algorithm for detecting objects in the multi-core SoC BF609 of Analog.  
*The project consist to develop the detecting objects algorithm in the BF609 processor and perform to analysis your performance.*

**Electrical Communications**, The Digital Modulator in FSK.  
*The project was implemented in FPGA with the develop of the Direct Digital Synthesis in Verilog.*

**Automatic Control**, Levitation System Adjustable.  
*It was implemented with PID controller of adjustable reference in the PSoC Express.*

**Embedded Systems**, MP3 Player in Beagleboard-xM.  
*This project was performed with the GStreamer libraries in the Angstrom distribution*

**Embedded Systems**, Security Log with Kinect in Beagleboard-xM.  
*This project consist the check the persons in the room and save in security log. It was developed with the OpenKinect Libraries.*

**Digital Systems**, Trigonometric Calculator in FPGA.  
*This project consist to compute trigonometric functions with CORDIC algorithm, it was implemented in FPGA with interface communication to the x86 microprocessor.*

**Digital Signal Processing**, Voice synthesizer.  
*This project consist to change voice tone with modification the harmonics the voice itself, it was programed in Octave.*

**TECHNICAL SKILLS** **Programming and Scripting Languages:** C/C++, Python, Java, Assembly (IA-32, Microchip), Matlab/Octave.

**Hardware Description Language:** Verilog, VHDL.

**Tools:** L<sup>A</sup>T<sub>E</sub>X, Subversion, LabView, Xilinx ISE, Altera Quartus, ModelSim, PSoCCreator, Visual Studio, Matlab/Octave, OpenCV, OpenKinect, CrossCore Embedded Studio, PSpice.

**Operating Systems:** Windows, Linux.

**Embedded Systems and Microprocessors:** Embedded Vision Starter Kit, PSoC Development Kit, Open hardware systems, FPGA Development Kit, dsPIC, PIC16/18.

**LANGUAGES** Spanish (native), English (intermedia).

SOFT SKILLS	Leadership, work in groups, teach to others, active listening, decision making, delegate, work through accomplishments and goals oriented.
OTHERS ACTIVITIES	Musical Composition, Independent drummer, Volunteering, Soccer player, Camping in the mountain.
REFERENCES	<p>Ing. Jorge Castro Godínez  jocastro@itcr.ac.cr ✉  Electronics Engineering School  Costa Rica Institute of Technology  (506) 2550-9231 ☎</p> <p>Ing. Johan Carvajal Godínez  johcarvajal@itcr.ac.cr ✉  Electronics Engineering School  Costa Rica Institute of Technology  (506) 2550-9171 ☎</p> <p>Bach. Olga Ortega Navarro  oortega318@gmail.com ✉  Administration Technical  Costa Rican Social Security  (506) 2573-7575 ☎</p>