Philip Wolfe

linkedin.com/in/pwolfe854 · github.com/pwolfe8 · pwolfe854@gmail.com · 256-701-1047

Experience

Georgia Tech Research Institute

- Implemented basic FPGA designs.
- Developed FPGA designs using VHDL, focusing on low-power consumption and high performance.
- Led a team in the design and implementation of complex FPGA solutions using VHDL. Achieved significant improvements in performance and power efficiency, applying modern synthesis techniques and thorough testing methodologies.

Beam Tech

- Implemented basic FPGA designs.
- Developed FPGA designs using VHDL, focusing on low-power consumption and high performance.
- Led a team in the design and implementation of complex FPGA solutions using VHDL. Achieved significant improvements in performance and power efficiency, applying modern synthesis techniques and thorough testing methodologies.

Skills

Software:

- C/C++: Unit and functional testing, Development on a variety of embedded processors/microcontrollers, Multithreading, Scheduling
- Python: machine learning, web socket servers/networking, automated firmware testing, live plotting of serial data
- Networking: configuring subnets, dhcp servers, scripts to automate testing between common configurations across multiple OSes
- Assembly: MIPS & ARM Assembly Experience, Robot Navigation, String Pattern Searching
- MATLAB: Control System Simulation, Filter Design, Image/Audio Processing, GUI Development, Graph Animation, Data Visualization

Lab Skills: Debugging techniques, multimeter, soldering, oscilloscope, logic analyzer, function generator, datasheet interpretation
Controls: Linear state space, digital controls, optimal controls; nonlinear controls
Other: Linux, Vim, C#/NET, Keil, LTSpice, Multisim, Solidworks, Onshape, Cadence Virtuoso, KiCAD, ADS, CST, Verilog, VHDL

Education

GEORGIA INSTITUTE OF TECHNOLOGY, School of Electrical and Computer Engineering
Masters of Science in Electrical and Computer Engineering
Bachelor of Science in Computer Engineering with High Honors
Interests: Automation, Controls, Embedded Systems, Machine Learning, FPGAs/Digital Design

Publications

[1] Francesco Amato, Chris M. Beaulieu, Aneneth T. Haile, Jingyuan Liang, Kevin M. Mairena, Hiba Murali, George O. Udochukwu, Ikenna C. Uzoije, Philip J. Wolfe and Gregory D. Durgin, "5.8 GHz Energy Harvesting of Space Based Solar Power using Inkjet Printed Circuits on a Transparent Substrate" in 2015 IEEE International Conference on Wireless for Space and Extreme Environments, Orlando, FL, 2015 [link]

[2] Amir Yazdanbakhsh, Hajar Falahati, Philip J. Wolfe, Kambiz Samadi, Nam Sung Kim, Hadi Esmaeilzadeh, "GANAX: A Unified MIMD-SIMD Acceleration for Generative Adversarial Networks" in 45th International Symposium on Computer Architecture (ISCA), 2018 [link]