Francis Sabado

Cato Springs Research Center, 72701
(479) 221-5334 | fsabado@email.uark.edu
www.fsabado.com | Linkedin.com/in/fsabado

WORK EXPERIENCE

University of Arkansas Research Lab: Fayetteville, AR

Graduate Research Assistant, August 2012 – Present

- Designed digital circuits and systems for ultra-low power design, extreme temperatures, hardware security, asynchronous logic, and 3D ICs.
- Developed software tools for designing asynchronous circuits and 3D circuits.
- Research Lab System Administrator (2014 – Present)

Hewlett-Packard: Houston, TX

Software Engineer Intern, June 2015 – August 2015

- Provided support and maintenance for the Storage Automation Tool (SAT), a critical infrastructure tool used by 6 internal HP teams. (Perl, HTML, JavaScript)
- Incorporated build configurations for Jenkins, CI system, to automatically build and test all SAT applications. Increased developer productivity by automatically handling the building and testing process.
- Developed and deployed a password reset web application to support 65,0000 HP Inc. employees. (ASP.net, C#, HTML, JavaScript, Active Directory, IIS)

University of Arkansas: Fayetteville, AR

Undergraduate Researcher, Jan 2011 – Dec 2011

- Research Fellowship: Analysis of Digital Circuits under Extreme Temperatures
- Android Development: SmartDrive – Cloud Enabled Mobile System for Safe Driving
- Angry Prims: Interfacing with the Virtual World via Microsoft Kinect and SecondLife

PROJECTS

Asynchronous Three-Dimensional Integrated Circuits (2016) – Team Lead

- Developed Asynchronous NCL/MTNCL cell library. Designed/Implemented a fully automated software tool flow for designing asynchronous 3D circuits from RTL to GDS II. Tezzaron 3D 130nm CMOS.

Asynchronous Fused Floating Point Complex Multiplier (2016)

- Designed and developed a 32- Bit Asynchronous MTNCL for low power applications: Radix-8 Encoded, Multi-staged/Pipelined.

MSP430 Tape-out using IBM 90nm CMOS (2015)

- Led the physical design of the synchronous MSP430 circuit. Synthesized Verilog RTL and created the GDSII for the synchronous MSP430.

Adaptive Hexacopter (2014)

- Adaptive Systems – Fault-tolerant hexa-copter implemented using ardupilot and Nexys 4 FPGA

Differential Power Analysis Attack and Mitigation on AES (2013)

- Hardware Security –Side channel attack using power correlation on 128-Bit AES

More Projects @ www.fsabado.com

EDUCATION

University of Arkansas – PhD Candidate, Computer Engineering

- GPA: 4.0 | May 2017 (Expected)
- Doctoral Academy Fellowship (2012-2016)

University of Arkansas – M.S, Computer Engineering

- GPA: 4.0| Dec 2015

University of Arkansas – B.S. Computer Engineering (Highest Distinction)

- Minor: Mathematics
- GPA: 3.95 | May 2012
- Dean's List, Chancellor's List, Governor's Scholarship, Chancellor's Scholarship: (2008-2012)

SKILLS

- **Proficient:** Java, Python, C++, VHDL, Verilog
- **Basic:** Perl, HTML, PHP, CSS
- **Platforms:** Linux, Unix, Windows
- **EDA Tools:** ModelSim, Sigasi HDL Studio, Cadence Virtuoso, Synopsys Design Compiler, Synopsys Liberty NCX, Cadence RTL Compiler, Cadence SOC Encounter, Mentor Graphics Calibre

PUBLICATIONS

Please see my website:

www.fsabado.com/#resume

AWARDS

- Arkansas Challenge Scholarship (2008-2012)
- Engineering Freshmen of the Year Finalist (2008)
- National Merit Corporation Scholar: Rheem (2008)
- Governor's Award for Musical Excellence (2008)
- Phillip Murray-USWA Scholar (2008)
- Asian and Pacific Islander Scholar : Wal-Mart (2008)

SELECTED COURSES

- **Graduate:** System Level Design, Integrated Circuit Design, Hardware Security, Low Power System Design, VLSI Design
- **Undergraduate:** Software Engineering, Embedded Systems, Mobile System Programming, AI

HONOR SOCIETY

Tau Beta Pi, Eta Kappa Nu, Phi Kappa Phi, IEEE Student Member, ACM Member

TEACHING EXPERIENCE

- Programming Foundations II – Summer 2013, Fall 2013, Spring 2013
- Digital Design I – Fall 2012, Spring 2012

MEMBERSHIPS

- Filipino Students Organization: Secretary (2016), Treasurer (2015)
- Game Development Club: Vice President (2011)
- Hall Senator: Senator (2008-2009), Representative (2009-2012)