Chance Tarver

1100 Bering Dr. Apr 323, Houston, TX 77057
tarver@rice.edu • +1 (337) 794-1212 • http://chancetarver.com

EXPERIENCE

VLSI Signal Processing for Communications Group Jan 2015 – Present
Research Assistant
- Prototyping of RF PHY designs on a Software-Defined Radio platform
- Developed a low-complexity FPGA design for a digital predistortion system

Samsung Research America May 2017 – Dec 2017
RF and PoC Intern
- Developed real-time, spectrum-sharing tools for LTE using LABView Communications including a custom FPGA design for the USRP

Lockheed Martin May 2016 – Aug 2016
College Student Tech SR. Specialist, Intern
- SDR development with the Cyber Solutions IRAD group in Hanover, MD
- Used GNURadio to develop a custom wireless communications system

EDUCATION

Rice University, Houston, Texas, USA

Ph.D. in Electrical and Computer Engineering May 2016 – Present
Advisor: Professor Joseph R. Cavallaro

M.S. in Electrical and Computer Engineering Aug 2014 – May 2016
Thesis Title: *Sub-band Digital Predistortion for Noncontiguous Carriers: Implementation and Testing*

Louisiana Tech University, Ruston, Louisiana, USA

Bachelor of Science in Electrical Engineering (B.S.E.E) Aug 2010 – May 2014
Senior Design Project: 250 W HF Power Amplifier
- Design, fabrication, and analysis of a type AB broadband power amplifier
- Operation in the amateur bands from 160 m to 10 m
- Maximum amplification of 12 dB
- Consisted of an amplifier, digital control system, and a filter bank

Bachelor of Science (B.S.) in Mathematics Aug 2010 – May 2014
- Advanced study of topics in linear algebra and analysis

PUBLICATIONS

M. Tonnemacher, C. Tarver, V. Chandrasekhar, H. Chen, Pe. Huang, B. Loong Ng, J. Zhang, J. R. Cavallaro, and J. Camp, "Opportunistic Channel Access Using Reinforcement Learning in Tiered CBRS Networks", *2018 DySPAN*

C. Tarver and J. R. Cavallaro, "Digital predistortion with low-precision ADCs," *2017 51st Asilomar Conference on Signals, Systems, and Computers*, Pacific Grove, CA, 2017, pp. 462-465.

C. Tarver, M. Abdelaziz, L. Anttila, M. Valkama, J.R. Cavallaro,, "Low-complexity, Multi Sub-band Digital Predistortion," in *Journal of Signal Processing Systems*, Nov 2017.

C. Tarver, M. Abdelaziz, L. Anttila, and J. R. Cavallaro, "Multi Component Carrier, Sub-band DPD and GNURadio Implementation," IEEE International Symposium on Circuits and Systems, Baltimore, MD, May 2017.

Li, K., Ghazi, A., Tarver, C. et al., "Parallel Digital Predistortion Design on Mobile GPU and Embedded Multicore CPU for Mobile Transmitters", Journal of Signal Processing Systems (2017) 89: 417.

M. Abdelaziz, L. Anttila, C. Tarver, K. Li, J. R. Cavallaro and M. Valkama, ”Low-Complexity Subband Digital Predistortion for Spurious Emission Suppression in Noncontiguous Spectrum Access,” in IEEE Transactions on Microwave Theory and Techniques, vol. 64, no. 11, pp. 3501-3517, Nov. 2016.

C. Tarver, M. Abdelaziz, L. Anttila, M. Valkama and J. R. Cavallaro, “Low-Complexity, Sub-band DPD with Sequential Learning: Novel Algorithms and WARPLab Implementation,” 2016 IEEE International Workshop on Signal Processing Systems (SiPS), Dallas, TX, 2016, pp. 303-308.

M. Abdelaziz, C. Tarver, K. Li, L. Anttila, M. Valkama, and J. R. Cavallaro, “Sub-band Digital Predistortion for Noncontiguous Transmissions: Algorithm Development and Real-time Prototype Implementation,” 2015 49th Asilomar Conference on Signals, Systems and Computers, Pacific Grove, CA, 2015

TEACHING EXPERIENCE

Fundamentals of Computer Engineering, Teaching Assistant — Jan 2015 – Present
ELEC 220, Rice University
- Developed the current lab curriculum
- Teaches in lab sections

Adv. VLSI Design, Teaching Assistant — Aug 2016 – Dec 2016
ELEC 522, Rice University
- Led help sessions for laboratory projects

Chemistry, Teaching Assistant — Jun 2014 – Jul 2014
ADVANCE Program for Young Scholars

Intro to Engineering, Teaching Assistant — Jul 2013 – Aug 2014
Louisiana Tech Freshmen Enrichment Program

PROFESSIONAL AFFILIATIONS & ACTIVITIES

Engineer in Training — Jan 2016 – Present
Issued by the Texas Board of Professional Engineers
EIT number 53490

IEEE-Eta Kappa Nu — 2014 – Present
Member

HONORS & AWARDS

ECE Affiliates Day Second Place Graduate Demo — 2017
Demo for a multi component carrier, sub-band DPD running on GNURadio.

Louisiana Tech Presidential Scholar — 2010 – 2014
Merit based scholarship awarded to outstanding incoming freshman

VOLUNTEERING

IEEE, EDS-ETC
- Participates and designs lessons for local K12 schools using the “snap circuits” platform to help educate youth about basic circuits concepts.

[*CV compiled on 2018-12-14*]