

## Contact

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## Top Skills

OFDM

Signal Processing

LTE

# Kome O.

Systems Engineering at Apple  
San Diego, California, United States

## Summary

Wireless Communications PhD in the communications and cellular industries with experience in research and product development of 5G, 4G, 3G, 802.11, and 802.16 radio access technologies. Expertise in both product implementation and research. Duties have included inventing, implementing, simulating and testing advanced wireless baseband signal processing and wireless algorithms in software, on wireless baseband processors and in collaboration with ASIC engineers. Expertise also includes serving as a researcher and delegate to wireless standards bodies such as 3GPP for NR/LTE development and IEEE for WiFi development. Academic experience as an adjunct assistant professor at UT Austin and a research/teaching assistant at Stanford University.

Specialties: 3GPP NR (Rel 15/16), 3GPP LTE/LTE-A (Rel 8/9/10 and beyond), 3G (WCDMA/HSPA), WiFi (802.11 a/b/g/n/ac/ah/ax/ay/FD TIG/ EHT/be, WiMax (802.16e) and Digital Subscriber Line (DSL).

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## Experience

Apple  
Systems Engineering  
September 2019 - Present (6 years 7 months)

InterDigital Communications  
Principal Engineer  
April 2012 - September 2019 (7 years 6 months)  
Greater San Diego Area

- 3GPP RAN1 Standards Delegate (2019 - ...)
- IEEE 802.11 Standards Delegate (...- 2019)
- 3GPP (5G NR) Research and Development including Ultra-reliable Low-Latency Communications (URLLC); 5G NR unlicensed ; MIMO and Beam Management; Power Control; Uplink and Downlink Control channel

- IEEE 802.11 (WiFi) Research and Development for next generation wireless LANs including 802.11 be/EHT/ax/HEW (sub 6 GHz WLANs); 802.11ay/NG60/802.11ad (60 GHz WLANs); 802.11ah (sub 1 GHz WLANs)); 802.11ba/ Wake Up Radio (WUR); 802.11 FD TIG
- Secretary for FD-TIG (2018)
- Responsible for Hybrid Beamforming sections in IEEE 802.11ay Specification Draft (mmWave WLAN) including writing specification and CID resolution.
- Responsible for part of MIMO PHY sections in IEEE 802.11ax specification Draft (sub-7GHz WLAN) including writing specification and CID resolution.

## Broadcom

### Senior Staff Scientist

September 2010 - April 2012 (1 year 8 months)

WCDMA/HSPA product development. Design, verification and testing of algorithms for modules such as frequency offset correction, Doppler estimation and interference cancellation for the base-band wireless modem in the 3G wireless systems.

## Huawei

### Staff Engineer

May 2008 - September 2010 (2 years 5 months)

- Served as 3GPP RAN WG1 delegate covering MIMO, Cooperative Multipoint Transmission (CoMP) and Heterogeneous networks (HetNet) for Release 9, 10 and 11 in LTE-Advanced

## University of Texas at Austin

### Adjunct Assistant Professor

January 2007 - May 2010 (3 years 5 months)

EE 381K-2: Digital Communication - Post-graduate level course on engineering principles and analytic techniques for digital communication systems to 25 students. The topics covered included modulation, error analysis, equalization (ZF, MMSE, MMSE-DFE), multi-carrier communication (Discrete Multi-tone and OFDM) and convolution coding.

## Freescale Semiconductor

### Systems Engineer

August 2005 - May 2008 (2 years 10 months)

• Developed algorithms and prototypes for 3GPP Long Term Evolution (LTE) Rel 8 and IEEE 802.16e in MIMO, power control and Fractional Frequency Re-use. Submitted 15 technical contributions to RAN 1 and filed 5 patents.

- PHY lead for PHY layer integration of micro-code modules and definition of PHY engine processor instruction/feature set based on the baseband algorithms.

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## Education

Stanford University

MS/PhD, Electrical Engineering