

Adwait Dongare

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EDUCATION

CARNEGIE MELLON UNIV

PHD IN ELECTRICAL & COMPUTER
ENGINEERING

Expected Aug 2020 | Pittsburgh, PA
Advised by Prof. Anthony Rowe

IIT BOMBAY

BTECH IN ENGINEERING PHYSICS

MINOR IN ELECTRICAL ENG

Aug 2014 | Mumbai, India

CPI: 8.55 / 10.0

RESEARCH INTERESTS

Wireless Systems

Wireless Sensing

Embedded Systems

Time Synchronization

Sensor Networks

Augmented Reality

COURSEWORK

Wireless Communications

Real-Time Embedded Systems

Computer Networking

Adv & Distributed Operating Systems

Intro to Machine Learning

Grad Artificial Intelligence

COMPETITIONS

2018-20 DARPA subterranean chal.

2012-14 Formula student electric

SKILLS

PROGRAMMING

Languages:

C • C++ • Python • Matlab • Shell • Swift

Frameworks:

iOS • GNU Radio

HARDWARE

Microcontrollers:

ARM Cortex-M series • Raspberry Pi
series • AVR series

Radios:

Analog Devices Pluto SDR • Decawave
UWB • Semtech LoRa (SX1276, SX1257,
SX1301) • TI BLE (CC 2540, CC2560)

CAD:

Eagle • SolidWorks

HOBBIES

Cycling, charcoal drawing, photography

EXPERIENCE

APPLE | SOFTWARE ENGINEERING INTERN - LOCATION TECHNOLOGIES

June 2019 – Aug 2019 | Cupertino, CA

TEXAS INSTRUMENTS | DESIGN ENG INTERN - KILBY RESEARCH LAB

May 2017 - Aug 2017 | Dallas, TX

APPLE | SOFTWARE ENGINEERING INTERN - CORE OPERATING SYSTEMS

June 2015 – Aug 2015 | Cupertino, CA

PUBLICATIONS

ALL THAT GLITTERS: LOW-POWER SPOOF-RESILIENT OPTICAL MARKERS FOR AUGMENTED REALITY

Sharma, R • Dongare, A • Miller, J • Wilkerson, N • Cohen, D • Sekar, V • Dutta, P • Rowe, A.

(To appear) ACM/IEEE IPSN, 2020 at Sydney, Australia

CHARM: EXPLOITING GEOGRAPHICAL DIVERSITY THROUGH COHERENT COMBINING FOR LOW-POWER WIDE-AREA NETWORKS

Dongare, A • Narayanan, R • Gadre, A • Luong, A • Balanuta, A • Kumar, S • Iannucci, B • Rowe, A.

ACM/IEEE IPSN, 2018 at Porto, Portugal • Won the best paper award

PULSAR: WIRELESS PROPAGATION-AWARE CLOCK SYNCHRONIZATION

Dongare, A • Lazik, P • Rajagopal, N • Rowe A.

IEEE 2017 at Pittsburgh, Pennsylvania • Won the best presentation award

OPENCHIRP: A LOW-POWER WIDE-AREA NETWORKING ARCHITECTURE | WORKSHOP PAPER

Dongare, A • Hesling, C • Bhatia, K • Balanuta, A • Pereira, R. L • Iannucci, B • Rowe, A.

IEEE SmartEdge, 2017 at Kona, Hawaii

TIMELINE: AN OPERATING SYSTEM ABSTRACTION FOR TIME-AWARE APPLICATIONS

Anwar, F • D'souza, S • Symington, A • Dongare, A • Rajkumar, R • Rowe, A • Srivastava, M.

IEEE RTSS, 2016 at Porto, Portugal

AWARDS

2018	Best paper award	at IPSN'18 for "Charm"
2017	Best presentation award	at RTAS'17 for "Pulsar"
2017	Fellowship	Hsu Chang Memorial Fellowship

RESEARCH

WIRELESS SENSING & EMBEDDED SYS LAB | PHD CANDIDATE

Aug 2014 – Present | Carnegie Mellon University • Pittsburgh, PA

• Working with Prof. Anthony Rowe on low-power wide area networking, sensor networking, precise time synchronization, localization and augmented reality.

EXPERIMENTAL HIGH-ENERGY PHYSICS LAB | UNDERGRADUATE RESEARCHER

June 2012 – May 2014 | IIT-Bombay • Mumbai, India

• Worked with Prof. Pradeep Sarin on developing electronic systems for particle detectors.