

Primal Pappachan

✉ primal@uci.edu | 🌐 primalpappachan.com/ | 📷 primalpop | 🎓 Primal Pappachan

Education

University of California, Irvine

PH.D IN COMPUTER SCIENCE

- Advisor: Prof. Sharad Mehrotra

Irvine, California

Expected 2021

University of Maryland, Baltimore County

M.S IN COMPUTER SCIENCE

- Advisor: Prof. Anupam Joshi

Baltimore, Maryland

July 2014

Government Engineering College, Thrissur

B.TECH IN COMPUTER SCIENCE AND ENGINEERING

Kerala, India

July 2011

Publications

CONFERENCE/WORKSHOP PROCEEDINGS (PEER REVIEWED)

Designing privacy preserving data sharing middleware for internet of things

Sameera Ghayyur, **Primal Pappachan**, Guoxi Wang, Sharad Mehrotra, Nalini Venkatasubramanian

DATA Workshop @ SenSys, 2020

Sieve: A Middleware Approach to Scalable Access Control for Database Management Systems

Primal Pappachan, Roberto Yus, Sharad Mehrotra, Johann-Christoph Freytag

Proc. VLDB Endow. 13.12 (2020). 2020

Towards Privacy-Aware Smart Buildings: Capturing, Communicating, and Enforcing Privacy Policies and Preferences

Primal Pappachan, Martin Degeling, Roberto Yus, Anupam Das, Sruti Bhagavatula, William Melicher, Pardis Emami Naeini, Shikun Zhang, Lujo Bauer, Alfred Kobsa, Sharad Mehrotra, Norman M. Sadeh, Nalini Venkatasubramanian

ICDCS Workshops, 2017

Building a Mobile Applications Knowledge Base for the Linked Data Cloud

Primal Pappachan, Roberto Yus, Prajit Kumar Das, Sharad Mehrotra, Tim Finin, Anupam Joshi

MoDeST Workshop @ ISWC, 2015

Are Apps Going Semantic? A Systematic Review of Semantic Mobile Applications

Roberto Yus, **Primal Pappachan**

MoDeST Workshop @ ISWC, 2015

A Semantic Context-Aware Privacy Model for FaceBlock

Primal Pappachan, Roberto Yus, Prajit Kumar Das, Tim Finin, Eduardo Mena, Anupam Joshi

PrivOn Workshop @ ISWC, 2014

Rafiki: A semantic and collaborative approach to community health-care in underserved areas

Primal Pappachan, Roberto Yus, Anupam Joshi, Tim Finin

CollaborateCom, 2014

Semantics for Privacy and Shared Context

Roberto Yus, **Primal Pappachan**, Prajit Kumar Das, Tim Finin, Anupam Joshi, Eduardo Mena

PrivOn Workshop @ ISWC, 2014

POSTER/DEMOS (PEER REVIEWED)

The ZotBins solution to waste management using internet of things: poster abstract

Joshua Cao, Jesse Chong, Marissa Lafreniere, Owen Yang, **Primal Pappachan**, Sharad Mehrotra, Nalini Venkatasubramanian

SenSys, 2020

SemIoTic: Bridging the Semantic Gap in IoT Spaces

Sumaya Almanee, Georgios Bouloukakis, Daokun Jiang, Sameera Ghayyur, Dhruvajyoti Ghosh, Peeyush Gupta, Yiming Lin, Sharad Mehrotra, **Primal Pappachan**, Eun-Jeong Shin, Nalini Venkatasubramanian, Guoxi Wang, Roberto Yus

BuildSys@SenSys, 2019

Mobipedia: Mobile Applications Linked Data

Primal Pappachan, Roberto Yus, Prajit Kumar Das, Sharad Mehrotra, Tim Finin, Anupam Joshi

International Semantic Web Conference (Posters & Demos), 2015

FaceBlock: privacy-aware pictures for google glass

Roberto Yus, **Primal Pappachan**, Prajit Kumar Das, Eduardo Mena, Anupam Joshi, Tim Finin

MobiSys, 2014

MASTER'S THESIS

A Semantic and Collaborative Approach to Community Health-care in Underserved Areas

Primal Pappachan

Research and Development Experience

University of California, Irvine

GRADUATE STUDENT RESEARCHER

Irvine CA, USA

Sept. 2014 - Present

- Part of [TIPPERS](#) (Testbed for IoT-based Privacy-Preserving PERvasive Spaces) Project
- Policy driven privacy protection for Database Management Systems ([Sieve](#), [PE-IoT](#))

University of Maryland, Baltimore County

GRADUATE STUDENT RESEARCHER

Baltimore MD, USA

Jan. 2013 - Aug 2014

- Context-aware assistant for differential medical diagnosis on Google Glass (Master's Thesis)
- Privacy-aware pictures for Google Glass ([Faceblock](#))

Picwell

SUMMER SOFTWARE ENGINEER

Philadelphia PA, USA

May. 2013 - Aug 2013

- DevOps and Backend Development using Flask, MySQL, and AWS

FOSSEE, Indian Institute of Technology (IIT) Bombay

RESEARCH ASSISTANT & DEVELOPER

Mumbai, India

July. 2011 - July 2012

- Developed the graduate admissions web portal for IIT Bombay used by 5000 students
- Created educational material on Python for Scientific Computing

Google Summer of Code (Komodo Open Lab)

STUDENT DEVELOPER (REMOTE)

Toronto, Ontario, Canada

May. 2011 - August 2011

- Developed Indoor Location tagging engine ([tagin](#)) along with benchmarking tools and API

Mentoring and Teaching Experience

ZotBins, UC Irvine

PROJECT MENTOR

Irvine CA

Jan. 2018 - Present

- Mentoring a independent group of undergraduate researchers who are passionate about IoT based zero waste management
- Students: Owen Yang, Joshua Cao, Marissa Lafreniere, Jesse Chong, and [others](#)

Science Champions 4 Change

STEM MENTOR

Irvine CA (Remote)

Jan. 2021 - Present

- Advising community college students who are interested in transferring to UCI

Graduate Division, UC Irvine

GRADUATE INTERCONNECT PEER MENTOR

Irvine CA

May. 2016 - May 2018

- Provide support and guidance to incoming international graduate students

Summer Undergraduate Research Fellowship in the Internet of Things (SURF-IoT)

RESEARCH ADVISOR

Irvine CA, USA

June. 2019 - Sept 2019

- Undergraduate Research Opportunities, UC Irvine
- Student: Robin Cristobal

School of Computer Science, UC Irvine

TEACHING ASSISTANT

Irvine CA

Jan. 2015 - Dec 2019

- ICS 122A: Introduction to Data Management
- ICS 143A: Principles of Operating Systems
- ICS 6B: Boolean Algebra & Logic

Recognition

AWARDS

- 2017 **People's Choice Award**, Graduate Research Symposium, UCI
- 2017 **Best Poster Award**, Computer Science Research Showcase, UCI
- 2015 **Google Internet of Things Technology Research Award**, Google
- 2014 **Graduate Fellowship**, Computer Science Department of UCI
- 2012 **Travel Fellowship**, IIT Bombay Travel Grant to attend PyCon Asia Pacific
- 2011 **Google Summer of Code (GSoC)**, Komodo Open Lab, Remote Internship
- Conference Travel Grants**, VLDB 2020, 2019, ICDE 2017, ICDCS 2017, ISWC 2015, 2014

PRESS

- 2015 **Nature**, [What could derail the wearables revolution?](#)
- 2017 **UCI CS News**, [CS Research Showcase continues to provide a platform for students to showcase their work](#)
- 2020 **UCI CS News**, [ZotBins and Zero Waste Anteaters Support UC Goal for 2020](#)
- 2020 **UCI News**, [UCI researchers use campus as test bed for coronavirus contact tracing system](#)

Talks

EE 250: Distributed Systems for the Internet of Things

University of Southern California

INVITED TALK ON ZOTBINS: SMART SPACE INITIATIVE FOR ZERO WASTE

2021

AGS Graduate Symposium

UC, Irvine

TOWARDS PRIVACY-AWARE BIG DATA: SPECIFICATION AND ENFORCEMENT OF PRIVACY POLICIES AT SCALE

2017

CS 122A: Introduction to Data Management

UC, Irvine

GUEST LECTURE (REPLACED PROF. SHARAD MEHROTRA FOR ONE OF HIS CLASS AND COVERED FUNCTIONAL DEPENDENCIES)

2016

Alumni Talk Series - Government Engineering College, Thrissur

India

LIFE AS A PHD STUDENT

2015

UMBC Research Review

Baltimore, MD

AN ONTOLOGY BASED SENSOR SELECTION ENGINE

2013

Software Development Techniques for Engineers and Scientists (SDES)

BHU Varanasi, India

3 DAY PYTHON WORKSHOP

2012

PyCon Asia Pacific

Singapore

PYTHONIZING THE INDIAN ENGINEERING EDUCATION

2012

DroidCon India

Bengaluru

INDOOR LOCATION TAGGING ENGINE FOR ANDROID

2011

Activities

GRANT PROPOSAL WRITING EXPERIENCE

- 2021 **NSF Smart and Connected Communities (SCC)**, Towards Zero Waste: AI-Enabled and trust-aware Infrastructure for Incentives-based Waste Management (in review)
- 2019 **NSF Smart and Connected Communities (SCC)**, Towards zero waste: technology-enabled waste management with smart space infrastructure (not funded)
- 2015 **Google IoT Technology Research Award Pilot**, \$5000 worth of hardware

PROFESSIONAL

- External Reviewer**, Middleware, European Conference on Information Systems (ECIS), SIGMOD, International Symposium on Cyber Security Cryptology and Machine Learning (CSCML)
- 2019 **Organizing Committee**, ZotBins Zero Waste Symposium, UC Irvine
- 2015 **Program Committee**, Workshop on Mobile Deployment of Semantic Technologies (MoDeST) at ISWC
- 2011 **Organizing Committee**, SciPy India

EXTRACURRICULAR

- 2015 **Heuristics Technosol, startup based in Cochin, India**, Technology Evangelist
- 2014 **Baltimore Code Craftmanship meetup group**, Co-organizer
- 2014 **ACM UMBC Chapter**, Treasurer
- 2014 **EKTA: Indian Student Organization at UMBC**, Official committee member
- Stackoverflow**, In top 2% of the users overall in terms of reputation earned

CERTIFICATIONS

- 2019 **Preparing for a faculty career program**, Graduate Division, UC Irvine
- 2016 **Mentoring Excellence Program (MEP)**, Graduate Division, UC Irvine

References

Prof. Sharad Mehrotra

Department of Computer Science
University of California
Irvine, CA 92697

✉ sharad@ics.uci.edu

Prof. Nalini Venkatasubramanian

Department of Computer Science
University of California
Irvine, CA 92697

✉ nalini@ics.uci.edu

Prof. Johann-Christoph Freytag

Institut für Informatik
Humboldt-Universität zu Berlin
D-10099 Berlin

✉ freytag@dbis.informatik.hu-berlin.de