

Arun Sai Krishnan

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EDUCATION

Carnegie Mellon University, School of Computer Science
MASTER OF SCIENCE, COMPUTER SCIENCE

Pittsburgh, PA
DECEMBER 2017 (EXPECTED)

National Institute of Technology, Tiruchirappalli
BACHELOR OF TECHNOLOGY, COMPUTER SCIENCE AND ENGINEERING (GPA: 9.22/10)

Tiruchirappalli, India
May 2016

EXPERIENCE

University of British Columbia | MITACS GLOBALINK RESEARCH FELLOW
May 2015 – Aug 2015 | Vancouver, Canada

MENTOR: DR. VICTOR LEUNG

- Member of the **WiNMoS Lab**. Developed **SAFeDJ**: a **mobile-cloud based context-aware music recommendation system**, to promote safer driving and improve driver-performance through situation-aware music delivery.
- Reduced the average music mood-mapping time from **78s to 32s** by eliminating computational bottlenecks through a context-aware system for offloading computation from mobile to cloud based on resource availability.
- Improved accuracy of the music mood-mapping process by **19%** through a novel approach to include a driver's social-context in the music mood-mapping process.

Indian Institute of Technology (IIT), Ropar | RESEARCH INTERN
May 2014 – July 2014 | Ropar, India

MENTOR: DR. JUNGHYUN JUN

- Conceptualized and implemented intuitive **gesture based detection** and **clustering** of **smart objects** using Doppler effect.
- Successfully detected and clustered smart-objects within a **2m** radius.

Teritree Technologies | SOFTWARE DEVELOPMENT INTERN
(Dec 2013 – Jan 2014) & (May 2013 – July 2013) | Bangalore, India

- Conceptualized, designed and developed a data agnostic **dashboard visualization framework** for flexible data visualization and rapid creation of e-commerce analytics dashboards. Published in ACM SIGSOFT Software Engineering Notes.
- Developed a **social shopping application** (Android) enabling a collaborative and community-curated approach to e-shopping.

Delta Force (Computing Club, NIT Trichy) | TREASURER & APPLICATION DEVELOPER
Aug 2013 – May 2016 | Tiruchirappalli, India

- Developed **mobile applications** (Android) for university related activities and technological festivals.
- Founded special interest groups for **mobile-cloud computing** and **Python**.

PUBLICATIONS

- A Novel Cloud-Based Crowd Sensing Approach to Context-Aware Music Mood-Mapping for Drivers. **IEEE CloudCom** 2015.
- Towards In Time Music Mood-Mapping for Drivers: A Novel Approach. **ACM MSWiM-DIVANet Symposium** 2015.
- A Data Agnostic Dashboard Visualization Framework For e-Commerce Data Analytics. **ACM-SIGSOFT SEN**, July 2014.

COURSEWORK

GRADUATE

Intro. to Computer Systems (15-513)
Distributed Systems (15-640) *
Cloud Computing (15-619) *
Algorithms (15-651) *
(* In Progress)

UNDERGRADUATE

Operating Systems
Computer Networks
Distributed Computing
Database Management Systems
Artificial Intelligence
Principles of Compiler Design

PROGRAMMING

PROFICIENT

Java • C • C++ • Android

FAMILIAR

Python • Javascript • Assembly
Shell • Django • MySQL
MongoDB • Flask

APPS - GOOGLE PLAY

SAFeDJ • Attendance Recorder
Teritree • Pragyan'15
Pragyan'14 • Festember'13

AWARDS

- Mitacs Globalink Research Fellowship (2015)
- Merit scholarship - MHRD, Govt. of India (2012)
- KVPY Fellowship (2012)

RESPONSIBILITIES

- Sub-reviewer, HPCC (IEEE - 2015)
- Treasurer, Delta Force (Computing Club of NIT Trichy)
- Marketing Manager, Festember (Cultural Fest of NIT Trichy)

EDUCATION

CARNEGIE MELLON UNIVERSITY

MASTER OF SCIENCE (MS),
COMPUTER SCIENCE
Expected December 2017
Pittsburgh, PA
CGPA: x.x / 4.0

NIT, TIRUCHIRAPPALLI

BACHELOR OF TECHNOLOGY,
COMPUTER SCIENCE & ENGINEERING
May 2016
Tiruchirappalli, India
CGPA: 9.22 / 10.0

COURSEWORK

GRADUATE

Intro. to Computer Systems (15-513)
Distributed Systems (15-640)
Cloud Computing (15-619)
Algorithms (15-651)
Machine Learning (10-601)

UNDERGRADUATE

Operating Systems
Computer Networks
Distributed Computing
Database Management Systems
Artificial Intelligence & Expert Systems
Principles of Compiler Design
Software Engineering

SKILLS

PROGRAMMING

Java • Python • Javascript
C++ • C • Shell • Assembly

MOBILE PLATFORMS

Android

WEB FRAMEWORKS

Django • Flask

DATABASES

MySQL • SQLite • MongoDB (NoSQL)

APPS ON GOOGLE PLAY

SAfeDJ • Attendance Recorder • Teritree
Pragyan'15 • Pragyan'14 • Festember'13

EXPERIENCE

WinMoS Lab, University of British Columbia

RESEARCH ASSISTANT & MITACS GLOBALINK RESEARCH FELLOW

May 2015 – Aug 2015 | Vancouver, Canada

Worked in the domain of context-aware mobile crowdsensing in mobile social networks under the guidance of **Prof. Victor Leung**. Focused on improving efficiency and accuracy of music mood-mapping in mobile-cloud based systems for music recommendation. Two research papers accepted for publication in IEEE CloudCom and ACM MSWiM-DIVANet Symp. Application - SAfeDJ published on Google Play.

Indian Institute of Technology, Ropar | RESEARCH INTERN

May 2014 – July 2014 | Ropar, India

Conceptualized and implemented intuitive gesture based detection and clustering of smart objects using Doppler effect under the guidance of **Dr. Junghyun Jun**.

Teritree Technologies | SOFTWARE DEVELOPMENT INTERN

Dec 2013 – Jan 2014 | Bangalore, India

Conceptualized, designed and developed a data agnostic dashboard visualization framework for flexible data visualization and rapid creation of e-commerce analytics dashboards. Published in ACM SIGSOFT Software Engineering Notes.

Teritree Technologies | APPLICATION DEVELOPMENT INTERN

May 2013 – July 2013 | Bangalore, India

Designed and developed an Android application for social-shopping which provides a collaborative, community-curated approach to e-shopping. Published on Google Play.

DELTA FORCE | TREASURER & APPLICATION DEVELOPER

Aug 2013 – Present | Tiruchirappalli, India

Treasurer of Delta Force - the premier computing club of NIT, Tiruchirappalli. Developed mobile applications for university related activities and technological festivals. Founded special interest groups for mobile-cloud computing and Python.

PUBLICATIONS

- Arun Sai Krishnan, X. Hu, J. Deng, R. Wang, C. Zhu, M. Liang, V.C.M Leung and Yu-kwong Kwok. A Novel Cloud-Based Crowd Sensing Approach to Context-Aware Music Mood-Mapping for Drivers. **IEEE CloudCom** 2015.
- Arun Sai Krishnan, Xiping Hu, Jun-qi Deng, Li Zhou, Edith C.H Ngai, X. Li, V.C.M Leung and Y. Kwok. Towards In Time Music Mood-Mapping for Drivers: A Novel Approach. **ACM MSWiM-DIVANet Symposium** 2015.
- Arun Sai K and Sriram Venkatapathy. A Data Agnostic Dashboard Visualization Framework With Customizable Layout For e-Commerce Data Analytics. **ACM-SIGSOFT Software Engineering Notes**, Vol. 39, No. 4, July 2014.

AWARDS & ACCOMPLISHMENTS

- Mitacs Globalink Research Fellowship (2015).
- Merit scholarship by Govt. of India based on performance in AIEEE.
- KVPY fellowship administered by IISc, India (2012).
- Sub-reviewer at IEEE HPCC 2015.