# Sai Ruthvik Thandayam

#### Personal Data

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### AREAS OF INTEREST

Augmented Reality, Virtual Reality, Mixed Reality, Computer Vision, Computer Graphics, Brain Computer Interfaces, Internet of Things

### SKILLS

SOFTWARES: Unity3d, Android Studio, XCode, ARAF, Visual Studio, Adobe Photoshop,

MATLAB, ARDUINO, Processing, OpenGL ES, OpenVLC, Eagle, Cadence, LATEX

LANGUAGES: C#, Java, Python, HTML, CSS, JavaScript, PSPICE

COURSEWORK: Getting Started with Augmented Reality, Software Development for Portable

Devices, Signals and Systems, Mobile Telecom Networks, Analog Electronics,

Analog and Digital VLSI Design, Microelectronic Circuits

#### **EDUCATION**

AUG 2013- BITS Pilani University

Aug 2017 Bachelor of Engineering (Honors) in ELECTRONICS AND INSTRUMENTATION

MAY 2012 Andhra Pradesh State Board for Higher Secondary Education, India | 89.1%

12th Grade Examination

MAY 2010 Central Board for Secondary Education, India | CGPA: 9.8/10

10th Grade Examination

#### WORK EXPERIENCE

SEP 2017-PRESENT Remote Intern at University of Rochester, Rochester, NY, USA

project: Interaction with AR objects using Leap Motion

GUIDES: DR. JANNICK ROLLAND, DR. ADAM HAYES

Developed a Marker-based AR Application using Vuforia SDK in Unity Editor for

Android/iOS Platforms.

Integrated Leap Motion in Mobiles using Server Client Approach

MAY 2017-PRESENT Research Assistant at Cognitive Neuroscience Lab, BITS Pilani, India

PROJECT: HOME AUTOMATION USING BCI AND AR

guide: Dr. Veeky Baths, Dr. Lizy Kanungo

Developed a prototype of Multimodal Device control using EEG in a stimulated Aug-

mented Reality Environment

JUL 2016-

Research Intern at ISEP, Paris, France

DEC 2016 | PROJECT: VISIBLE LIGHT COMMUNICATION(VLC)

GUIDE: DR. XUN ZHANG

Designed the VLC transmitter and Receiver in Eagle software and then printed it on PCB boards, Tested the VLC transmitter and receiver boards on ARDUINO, Beagle bone black

Platforms

## **PROJECTS**

# OCT 2017 Virtual Object control in Unity Editor with Mobile Device via Visible Light Communication(VLC)

Developed the VLC system on Arduino, controlled the game object in unity editor in computer from mobile device.

### SEP 2017 | Virtual Object Rotation using Blink EEG Data

Developed an Android App in which the rotation of the Virtual cube can be changed via a forcible blink(EEG Blink data from Neurosky headset)

## MAY 2017- | Marker Based Augmented Reality Applications

SEP 2017 Developed AR Personal Resume Application.
Developed an AR version of Pokemon Battle.

Developed videoplayback AR applications in VR/cardboard view.

# FEB 2017- | Product Searching using Augmented Reality System

MAY 2017 | GUIDE: DR. SREEJITH V

Developed Mobile Augmented Reality Application for indoor navigation using NFC/QR

Codes

#### FEB 2016- Wireless Heart Rate Sensor

MAY 2016 | GUIDE: DR. VEEKY BATHS

Designed and assembled the hardware of the prototype and established a wireless connection between Raspberry Pi and Android Application running in the mobile device

### **PUBLICATIONS**

EEG-based classification of bilingual unspoken speech using ANN, 39th Annual International Conference of the IEEE Engineering in Medicine and Biology Society (EMBC), Seogwipo, 2017, pp. 1022-1025. doi: 10.1109/EMBC.2017.8037000

A Portable Real Time ECG Device for Arrhythmia Detection Using Raspberry Pi. In: Perego P., Andreoni G., Rizzo G. (eds) Wireless Mobile Communication and Healthcare. MobiHealth 2016. Lecture Notes of the Institute for Computer Sciences, Social Informatics and Telecommunications Engineering, vol 192. Springer, Cham. doi: 10.1007/978-3-319-58877-3-24

### POSITION OF RESPONSIBILITY

Nov 2017	Speaker in the 6th Colloquium of Technology Management at FCA UAQ
2017	Teaching Assistant for Software Development for Portable Devices course
MAR 2017	Volunteer for the 4th International AttLis Workshop
2016	Mentor for the project "Wireless Heart Rate Sensor" at TIP

#### INTERESTS AND ACTIVITIES

Developing AR games, playing and exploring new AR apps Mentoring Campus Juniors for projects related to AR/VR, Freelancing and online tutoring during free time