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SUBRAMANIAN ALAGAPPAN

EXPERIENCE

SOFTWARE ENGINEER

Blueshift Information Systems Pvt Ltd. – April 2014 to March 2015 – 11 Months

SOFTWARE ENGINEER

ISH Information Systems Pvt Ltd. – March 2015 to Present

EDUCATION

B.E. COMPUTER SCIENCE AND ENGINEERING

P.B. College Of Engineering, Anna University, Chennai - 7.9 CGPA(Till Date)(Out of 10,0)

S.S.L.C. (12TH GRADE)

Velankanni Matric Hr. Sec. School, Chennai -70%

H.S.C (10TH GRADE)

Vani Vidyalaya Junior College, Chennai - 68%

SKILLS AND ABILITIES

[PRORAMMING LANGUAGES]

C, C++, C#, Python, JavaScript, JQuery, HTML, XML, XSLT, CSS, SQL.

[FRAMEWORKS]

Node.JS, Express.JS, .NET, Android SDK, Processing, Arduino, Unity 3D.

[API'S]

AngularJS, OpenCV, Processing.js, SDL, OpenGL, Qt, Bootstrap, Foundation.

[SOFTWARE ENVIRONMENTS]

Blender 3D, Unity 3D, Adobe Photoshop, GIMP, Code Blocks, Eclipse, Adobe After Effects, Adobe Premier Pro, Microsoft Office, Open Office Org, Adobe Audition, Adobe Flash.

[OPERATING SYSTEMS]

Ubuntu 14.05, Fedora, Windows XP, Windows 7, Windows 8.1.

PUBLICATIONS

S. Alagappan and A.S. Kumar, "SincX: An open sourced Intuitive Single handed Interaction Controller" IEEE Proceedings of "4th International Conference on Intelligent Human Computer Interaction", IIT Kharagpur, December 2012. ISBN: 978-1-4673-4367-1

S. Alagappan, B. Thirupathi and R. Thirumudipandian, "Virtual Mouse using Template Matching" ICSE Proceedings of "International conference on Electrical and Computer Science", Ooty. ISBN: 978-93-81693-79-7

RESEARCH INTERESTS	Virtual Reality, Human Computer Interaction, 3D Interfaces, Wearable Computing, Next Generation Interfaces, Computer Graphics, Gesture Based Interaction, Artificial Intelligence, Game Design.
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INITIATIVES	SINC RESEARCH LABS
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A research initiative started by me for collaborative research among students of P.B. College of Engineering. Helped students of different departments and disciplines work together.

Projects – SincX, SincTrack, SincTop, 3CUBE, Robot Arm, Robot Drones, Quad copters, and Gesture controlled miniature hover boards.

CYBERTRON 2014 – A NATIONAL LEVEL TECHNICAL SYMPOSIUM

Organized and acted as the student secretary for the national level technical symposium where students from all over the country came together and shared their thoughts and ideas.

CYBERTRON 2K13 – A NATIONAL LEVEL TECHNICAL SYMPOSIUM

Organized the national level technical symposium for students and researchers around the country where they shared their knowledge and participated in technical competitions.

SELECTED PROJECTS

SINCTRACK: IMMERSIVE 3D VIEWER USING INFRARED BASED HEAD TRACKING FOR INTERACTIVE CAVE BASED VIRTUAL REALITY ENVIRONMENTS

Proposed a method to track the head movements of the user and adaptively change the graphics on the CAVE screens to give the user a feeling of real immersive 3D. When the objects in the screen are skewed according to the viewer's perspective, it creates a real 3D viewing experience. This is achieved by tracking the users head movement using Infrared LEDs and Infrared camera.

SINCTOP: 3D DESKTOP INTERFACE

Designed a 3D desktop interface named SincTop. SincTop uses 3D objects, which are modeled after the real life counterpart of the tool used to perform the action, as interaction elements. For example to listen to music a Gramophone object is present which is in 3D, to take notes a 3D notepad is present on top of a table in the desktop itself.

SINCX: AN INTUITIVE INTERACTION CONTROLLER
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Designed an Interaction controller which could act as an replacement for general interaction devices such as mouse and keyboard and game controllers such as analog joy pads and joysticks. It is also designed to advantage the disabled by adding simple touch based interaction.

OAMSLITE

Designed a totally configurable web application for Online Application Management System. The total application can be changed without changing a single line of code, Just by editing XML configuration files. The application has a responsive interface which adapts itself based on the screen width of the viewing device. Therefore the application can be seamlessly used in a mobile device. The application uses AJAX to asynchronously load all the data and is

highly efficient.

VIRTUAL MOUSE SOFTWARE BASED ON TEMPLATE MATCHING IN OPENCV

Designed Virtual mouse software based on OpenCV API which uses the Web Camera of the computer as a mouse. The user can move the mouse with a wave of his hands in front of the camera.

ROBOT ARM

Built an Infrared Controlled Robot Arm using servos and Arduino microcontroller platform. The arm was hand built and the controller was a ATmega328 in an Arduino based clone board "Induino". Used IR Detectors to take signals from IR LEDs and control the arm.

EDUCATIONAL ACHEIVEMENTS AND AWARDS

- 1) Published paper in IEEE proceedings of International conference on Intelligent Human Computer Interaction, December 27-30, 2012, IIT Kharagpur, India.
- 2) Presented paper at Cyborgs, A two day national level technical symposium conducted by Valliamai Engineering College, Anna University, Chennai.
- 3) Presented Paper at Infogeddon 2k11, A national Level technical symposium conducted by Sri Sai Ram Engineering College, Anna university, Chennai.
- 4) Won 3rd position in Digital Art (Photoshop Speed Design) Competition held by Valliamai Engineering College, Anna University, Chennai.
- 5) Secured grade E (Excellent) in NIIT (National Institute of Information Technology) IT Wizard Curriculum in Level 2 group D.
- 6) Reached level 1 at NLPC '12 (National Level Programming Contest 2012) conducted by SVCE ACM Student Chapter.
- 7) Participated in Digital Art Competition conducted by SSN College of Engineering, Chennai.
- 8) Won 2nd place in All Asia Bournvita Quiz Contest Intra-School 2001.
- 9) Won 2nd place in Inter-School Science Exhibition – 2007 held at Maharishi VidyaMandir Senior Secondary School.
- 10) Participated at National Level Science Talent Search Exam held at Velammal Educational Trust.

EXTRACURRICULAR ACTIVITIES AND ACHIEVEMENTS

- 1) Captained the 1st place Winning department basketball team in inter departmental basketball tournament held at P.B. College of Engineering.
- 2) Won 2nd place in Inter house Kabadi tournament held at VaniVidyalaya Junior College.
- 3) Won 2nd position in Ad zap Competition held by Apollo Engineering College, Chennai.
- 4) Student Coordinator at national level technical symposium "Labyrinth 2k12".
- 5) Student Coordinator and Chairman at national level technical symposium "Cybertron 2013".
- 6) Played Guitar in College level Cultural meet.

REFERENCES

MR. N. KARTHIKEYAN,
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