SIDDARTHA RAVICHANDRAN

www.curlysid.com
siddartha1191@gmail.com
+91-994 529 4548

CAREER OBJECTIVE

To pursue an active career in the fields of Computer Graphics, Computer Vision, Machine Learning and their applications to expanding fields such as Video Games, Computer Simulation and Virtual Reality with a view to develop design optimized, efficient and reliable systems.

PROFESSIONAL EXPERIENCE

Tally Solutions Pvt. Ltd. **Software Engineer (Research & Development)** **July '12 - present**

Tally Solutions Pvt. Ltd. is a product-based software company located in Bangalore, India. The main product sold by Tally is an ERP software, namely Tally.ERP 9 Series A, suitable for micro, small and medium-sized enterprises. The company is also currently developing an ERP package for large and very large scale companies.

Key Highlights:

Design and Development of an Intelligent Cross-Platform User – Interface Engine

- Designed and developed several High Level Artefacts, Components and Interfaces.
- Designed and developed Dimensioning capabilities and Navigation Frameworks across User Interactions and Components with respect to Inputs through Keyboard, Mouse and Touch
- Crafted an Intuitive Cross-Platform User Experience taking into consideration User Inputs, Interactions, Components, Primitives and States
- Two Internal tracking systems utilising the User Interface Engine were successfully released.

Design and Development of Language Platform Layer (Tally Definition Language – TDL)

- Created Language Interfaces for the high level User Interface Components, Interactions which were exposed to the Application Layer.
- Developed Specialized Maps needed to maintain the hierarchy of the User Interface.
- Two Internal tracking systems utilising TDL were successfully released.

Development of Cross Platform Client Application through creation of Prototype

- Established and validated the application's design with respect to capabilities in the Android Platform which include Asynchronous execution, Queue based Multi-Threaded Architecture, Interpreted Creation of User Interface, Data – UI Dependency Management

Development of a Graph Library and Report Processor

- Created a Graph library that maps statistical data to visual graphs and charts.
- Developed an image processing unit that converts reports on paper to its digital equivalent.

Core Member of Tally's Programming Club

- Conducted seminars on Bloom Filters and Android.
- Working on a Download Manager for the Linux platform

EDUCATION

Year of Completion	Degree	Institute/School	Percentage/ CGPA
2012	B. Tech (Comp. Sc.)	National Institute of Technology, Tiruchirapalli	7.98
2008	All India Senior School Certificate Examination (AISSCE)	P.S Senior Secondary School	93%

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INDEPENDENT PROJECTS

Game Engine for Android Game	July '14 – Present
Creation of a Game Engine in the Native Android Platform to be utilized for developing a Game based on "The Legend of Korra" animation series. The engine is currently capable of managing assets, textures in memory, rendering multiple layers through the use of shaders and animating them and carrying out motions such as jumping, flying. I've also created concept art and art for various elements of the game.	

RESEARCH PROJECTS

Strategy Learner for 2 Player Games	January '12 – May '12
Final Year project at College under Professor R Leela Velusamy explored the use of Machine Learning techniques in order to develop a smart Artificial Intelligence system that can efficiently play a two player game. Implemented with a neural network to approximate the value function over the space of board states, and using temporal difference learning to refine that value function through experience.	
5-Cycle Pipelined 32-bit Floating Point Arithmetic Unit	May '11 – July '11
Carried out at the Reconfigurable and Intelligent Systems Engineering Lab, Department of Computer Science and Engineering of Indian Institute of Technology, Madras under Professor V Kamakoti, this Unit was constructed as part of the design of ANUPAMA – Advanced Numeric Processor for Airborne and Missile Applications funded by the Defence Research and Development Organization (DRDO).	
Chatur Automated Verification Environment (CAVE)	May '10 – July '10
This project was carried out at the Reconfigurable and Intelligent Systems Engineering Lab, Department of Computer Science and Engineering of Indian Institute of Technology, Madras under Professor V Kamakoti with the aim of automating the Verification of Verilog in design. For implementing a hardware design successfully, it is important for design to be verified. Verification is a tedious job to be done manually and is usually error-prone. CAVE provides an automatic verification environment which generates e-code, serving as a test bench used to compare the actual output with the expected output. CAVE is a generic verification environment which can be used for a various designs for a set of inputs.	

TECHNICAL SKILLS

Programming Languages	C ,C++, Java, HTML, PHP, SQL, PL-SQL, Python, JavaScript, Visual Basic
Image Processing Tools	Adobe Photoshop, Anime Studio
Application Programming Interface	Win32, Android SDK and NDK, Open GL
Hardware Description Languages	Verilog, Specman E, Bluespec Verilog

AWARDS AND HONORS

- Received CBSE scholarship sanctioned by the Ministry of Human Resource Development for four years (2008 - 2012)
- Won School Award and Central Board of Secondary Education (CBSE) Merit Certification for securing **100%** in the All India Secondary School **Mathematics** Examination in the final year of high school (2008)

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- Won School Award for standing **First** in class with the highest total in the CBSE Board Examination in the final year of high school (2008)

OTHER INTERESTS

- Gaming – Dota 2, World of Warcraft
- Sketching
- Cricket, Table Tennis
- Travelling

Place: Bangalore
Date : November 24, 2014