RESUME OF KUNAL DAWN

SUMMARY

To take a challenging and high performance oriented role in the field of Computer Engineering and implement the expertise and experience gained in this field to develop complex projects with efficiency and quality.

EDUCATIONAL QUALIFICATIONS

B.Tech. in Computer Science and Engineering from Sikkim Manipal Institute of Technology, 2011, 7.45 CGPA. M.Tech. in Computer Science and Engineering from SRM University, 2013, 9.65 CGPA (3rd Rank in University).

TECHNICAL SKILLS

Operating Systems	:	Linux (Expert), Windows, Android
Languages	:	Java (Expert), C, C++, Python (Expert), C#, Matlab Script, Shell Script, Golang
RDBMS	:	MySql, Sqlite, H2
Web	:	AngularJS, Play Framework, Flask
Tools	:	Intel OpenCV, Aforge.NET, Qt SDK, Android SDK, Android NDK, JavaFX8, .NET3.5, GTK+, Git, Jenkins, Gradle, Gerit.
IDE	:	Eclipse, PyCharm/IntelliJ, Visual Studio.

CAREER PROFILE

Company	Position	Duration
SRM Technologies	Technical Consultant	17/06/2013 – Till date

PROFESSIONAL EXPERIENCE

Project # 1

Title	:	Shared Information Infrastructure Software
Client	:	Leading Japanese Client
Company	:	SRM Technologies
Team Size	:	6
Environment	:	JavaFX SDK, Android NDK, Android SDK
Duration	:	6 months (September, 2013 to February, 2014)
Role	:	Lead Developer and Architect
Description	:	The project aims in Development of Software/Protocol Stack which is combination of Pub-Sub and DTN concepts. It includes development of Software Front End and Core Protocol Stack for both Linux and Android operating system. The primary goal of the software is to increase the communication gap between Students and Teachers by providing a Network Infrastructure Independent way to share Information and News.

Project # 2

Title : Android Automation Tool (Architect and Enginer)
Client : Leading Japanese Client
Company : SRM Technologies
Team Size : 4
Environment : Proprietary Android SDK, Proprietary UI Automation framework, Eclipse, Jenkins, Gerrit, Android Acceptance Test and Instrumentation.
Languages include Java, Bash, Python and Jenkins build scripts, Gradle scripts.
Duration : 12 months (June, 2014 to June, 2015) [Ongoing…]
Role : Engineer and Architect
Description : Maintenance of existing Android Proprietary UI Automation framework with native framework modeling and enhancement. Development of new Proprietary UI Automation framework for Android L/M. This project deals with maintenance, enhancement and development of android UI automation framework to execute superior automated UI testing and System testing remotely on proprietary android devices with custom Android OS.

ACADEMIC EXPERIENCE

Project # 1

Title : Liquid Interface Control using Hand Gesture
Place : Sikkim Manipal Institute of Technology
Team Size : 2
Environment : Matlab
Duration : 6 months
Role : Programmer, Algorithm Designer
Description : Development of Algorithms for Human Computer Interaction on Liquid Surface Interfaces. The project aims development of software which applies image processing techniques to convert any 2D Surface to a touch based input devices by only using Camera.

Project # 2

Title : Surface Computing 4G HCI
Place : Sikkim Manipal Institute of Technology
Team Size : 2
Environment : Visual C#, Aforge.NET, EmugCV
Duration : 6 months
Role : Programmer, Algorithm Designer, Hardware Developer
Description : Development Low Cost Hardware and Software for 4th Generation Human Computer Interaction. The project involves development of complete Software Stack with development two different Multi-Touch hardware based on Frustrated Total Internal Reflection and Diffused Illumination in Infrared Spectrum. The project also involves in development of unified and optimized image processing algorithms to process Infrared Spectrum at realtime and provide Multi-Touch inputs to Windows 7 Kernel via HID interface.

Project # 3

Title : Investigation of Graphical Authentication Techniques
Place : SRM University
Team Size : 1
Environment : Matlab
Duration : 2 months
Role : Programmer, Algorithm Designer
Description : Research and Development of Algorithms for Graphical Authentication techniques for which graphical passwords can only be remembered easily but can not be written down or passed to other human for fraud. Primary objective of the project is to replace CAPTCHA by combining Multiphase Authentication and Human Detection Techniques.

Project # 4

Title : DTN System for Rural Educational Systems
Place : SRM University
Team Size : 1
Environment : NASA ION DTN, DTN2 NumPy, SciPy, GNU Plot, ONE Simulator
Duration : 6 months
Role : Programmer, Algorithm Designer, Protocol Developer
Description : The project aims in development of Low Cost Hardware Software Stack which will allow Free and Autonomous distribution of Educational Materials from Urban Universities to Village Schools using Local Bus Transportation System. The project also aims in development of new Lightweight DTN Protocol for ARM Hardware and Mathematical Model development and Simulation to analysis the content delivery process.

PUBLICATIONS

Paper # 1

Analysis of cooperation of node movement and its effects on messaging delay in DTN systems.
IEICE-NS2012-138 [(Vol. 112, No. 350), Pages: 127-132, Dec. 2012]. H. Wakayama, K. Dawn, M. Ogawa

Paper # 2

A Novel Gesture Based Graphical Authentication Using Bounding Box and Corner Detection Algorithm.
International Journal of Communication & Signal Processing / IEEE Explore. (ICCSP 2012 Associated with IEEE). Kunal Dawn, G. Niranjana

Paper # 3

Graphical Authentication Using Region Based Graphical Password.
IOAJ International Journal of Computer Science & Information Technology, (ICCSIT 2012 COIMBATORE). Kunal Dawn, G. Niranjana

Paper # 4

A Cryptosystem based on Elliptic Curve Cryptography.
International Journal of Computer Science and Information Technology. (Vol.3 No.1 Jan-June 2010). Kunal Dawn, Medha Devaraj, Deepika Singh & Surabhi Sonam

Paper # 5
Liquid Interface Control using Hand Gesture.
International Journal of Computer Science and Information Technology. (Vol.3 No.1 Jan-June 2010). Kunal Dawn, Medha Devaraj, Surabhi Sonam & Deepika Singh

Paper # 6
Performance Comparisons of Single & Multipath Routing Protocol over MANETs.
International Journal of Computer Science and Information Technology. (Vol.3 No.1 Jan-June 2010). Kunal Dawn, Medha Devaraj, Surabhi Sonam & Deepika Singh

Paper # 7
Investigation of Educational Content Delivery in Villages Using Bus Assisted DTN and its Simulation Analysis. CiiT International Journal of Networking and Communication Engineering
(Vol.7 No.2 Jan 2015). G. Niranjana, Kunal Dawn

INTERNSHIPS

Period : 12-July-2012 to 28-September-2012
Topic : Investigation of Ferry Assisted Delay/Disruption Network System and its Simulation Models.
Place : NEC Corporation, Cloud Systems Research Laboratories, JAPAN.

PERSONAL PROFILE

Date of Birth	08/08/1988
Sex	M
Marital Status	Single
Nationality	Indian
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Date of Expiry	25/07/2021
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I hereby declare that all the information provided above are true and correct to the best of my knowledge and behalf.