Somsubhra Bairi

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EDUCATION

Degree	University/Institute	Year	CPI/Aggregate
B.Tech.(ICT)	Dhirubhai Ambani Institute of Information and Communication Technology(DA-IICT), Gandhinagar	2011-15	8.47
Intermediate/+2	Best Higher Secondary School, Ahmedabad, Gujarat Gujarat Secondary and Higher Secondary Education board	2009-11	94.20%
High School	Best High School, Ahmedabad, Gujarat Gujarat Secondary and Higher Secondary Education board	2006-09	93.85%

PROFESSIONAL EXPERIENCE

Google Summer of Code, 2014

Making Krita Animation usable, KDE (May, 2014)
Mentors: Timothee Giet, Sven Langkamp
- Wrote an improved frame switching algorithm for Krita Animation(an animation creation software), which made it upto 5 times faster.
- Added essential animation tools like Onion skinning and local playback.
- Added support for multiple animation layers and export of animation.

Google Summer of Code, 2013

Animation support in Krita, KDE (Jun., 2013)
Mentor: Boudewijn Rempt
- Changed existing Krita(a digital painting application) to support multiple frames.
- Wrote a new file format to efficiently store and extract animation layers and frames in real time, which helped reduce memory usage of Krita Animation.
- Designed a timeline GUI to provide an easy to use interface to create animations.

PROJECTS

Studyclan(An online questions and answers platform for academics) (Sept., 13 – Jan., 14)
- Designed a dynamic home stream for users based on their interests and subscriptions.
- Wrote a time decaying trends generation algorithm to get buzzing topics, a public API and context based search.

Read For Blind(Windows Phone Application to help visually impaired read books) (Jan., 13 – Apr., 13)
- Wrote an image processing module to detect and extract page of book as pre-processing step, which helped improve Optical Character Recognition(OCR) results dramatically.
- Developed a voice based application navigation system to make it more usable for target users.

Readability Index for Indian languages(Measures toughness for understanding text) (Jan., 14 – Apr., 14)
- Developed an algorithm to count number of syllables of word in Indian languages, the most important feature for calculating readability score.

- Developed a machine learning module in python, which automatically develops a readability model for Indian languages based on training data.

Personal Projects(Some projects which I hack on in my free time)
- [Whistle](a voice controlled music player), [Cosmos](a lightweight web browser), [VDoc](A disease prediction application), [PreviewLinks](API for links preview generation). All my projects can be found at https://github.com/Somsubhra

SKILLS

Expertise Area	Open Source Software Development, Full Stack Web Development, Algorithms
Programming Languages	C++, Python, PHP, javascript, Java, C, Go, C#, HTML5, CSS3, SQL, Hack

Tools and Technologies	**Desktop Frameworks**	Qt, KDE Frameworks
	Web Technologies/ Tools/Frameworks	webapp2, [Slim] Framework(PHP), node.js, express.js, jQuery, Google AppEngine SDKs, [OpenShift](Redhat), HipHop Virtual Machine([HHVM], Facebook), LAMP stack
	Database/store	MySQL, Google Cloud SQL, MongoDB, Google Datastore
	Mobile	Windows Phone 8
	Others	git(version control), cmake(build system), gdb(debugging)

Technical Electives	Operating Systems, Information Retrieval, Digital Image Processing, Computer Graphics Data Structures and Algorithms, Introduction to Cryptography, Database Management Systems, Computer Networks, Object Oriented Programming, Systems Software

ACHIEVEMENTS AND ACTIVITIES

- Finalists in [Google Cloud Developer Challenge], 2013-14 for the start-up Studyclan. My team stood second in the final rankings.
- National finalists in [Microsoft Imagine Cup], 2013 for the mobile application Read For Blind. My team stood third in the final rankings.
- Technical Reviewer for the book '[Learning OpenShift]' (Packt Publications) which is set to be released in October, 2014.
- Speaker at events like Google Devfest, DA-IICT and Google Devfest, Gandhinagar.

INTERESTS AND HOBBIES

Digital painting, Reading(only fiction)

Last updated July 7, 2014