SHALIN SHAH

Dhirubhai Ambani Institute of Information and Communication Technology (DA-IICT)

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AREA OF INTERESTS DNA Self-Assembly, DNA Computation, DNA Data Storage, Algorithms, Disease Detection using Image Processing, Software Development, and 3D Games/Simulation.

EDUCATION

DA-IICT, Gandhinagar, Gujarat, India

B. Tech in Information and Communication Technology

GPA: 8.5/10.0

Doon International Public School, IndiaHSc, Gujarat State Board

2010-11
Percentile: 99.76

Doon International Public School, India2008-09SSc, Gujarat State BoardPercentage: 91.60

PUBLICATIONS

Shalin Shah, Dixita Limbachiya, Manish K. Gupta. DNACloud: A Potential Tool for storing Big Data on DNA. *In Proc. of 11th International Conference on Foundations of Nano Science: Self-Assembled Architectures and Devices (FNANO'14)*, Snowbird, Utah, USA. April 14 - 17, 2014. (pdf)

Shalin Shah, Vijay Dhameliya, Anil Roy. ImPatho - an Image Processing Based Pathological Decision Support System for Disease Identification and a Novel Tool for Overall Health Governance. *In Proc. of IEEE Region 10 Humanitarian Technology Conference (IEEE R10 HTC)*, Chennai, India. August 6 - 9, 2014. (**pdf**)

PAPERS IN PREPARATION

Shalin Shah, Parth Dave, Manish K. Gupta. Finding Division and Square Root of Rational Numbers using DNA Tile Self-Assembly.

EXPERIENCE

Teaching Assistant, DA-IICT

(July'14 - Current)

Mentor: Dr. Minal Bhinse

Serving as a T.A for the Database Management Systems course where my main job was to help around 240 students with their course and lab work.

Research Intern, Gupta Lab

(Summer'14)

Mentor: Dr. Manish Gupta

Worked on devising a square root algorithm for rational numbers in the DNA Tile Self-Assembly model. Came up with a new algorithm which can give rational quotient as an output.

Teaching Assistant, IEEE Summer School

(May'13)

Mentor: Prajyot Mainkar

I served as a T.A for the Android Development track where my main job was to help around 50 students develop their android applications, fix bugs.

Research Intern, Gupta Lab

(Summer'13)

Mentor: Dr. Manish Gupta

Developed a cross-platform tool, DNACloud, using Python, which can convert a computer file to DNA string and retrieve the same. Also, came up with a new memory efficient algorithm.

Contributor, Open Intents

(Winter'13)

Mentor: Friedger Muffke

I was a contributed in OI Flashlight and OI Notepad android applications, helping them solving

bugs and adding new features. I still maintain OI Flashlight repository.

Volunteer, Sunteknovations

(Winter'13)

Mentor: Dr. Prabhat Ranjan

I volunteered in developing an android application called E- Mukt for disabled. My task was to included voice recognition feature in the app. The app can also connect with other embedded devices, to transmit the voice command.

Rural Intern, Vatsalya Mandir(NGO)

(December'12)

Mentor: Dr. Mahendra Mohan

Helped in organizing 24th Children Welfare Conference, Oni along with other members of NGO. Also, studied the working of Gokul(orphanage).

SKILLS

Coding: Python, C#, HTML5, CSS3, C++, JAVA, C, SQL

Other Technolgies: LATEX, Bootstrap API, Android SDK, Windows Phone 7 and 8 SDK, Windows Store App SDK, Git, Panda3D, Arduino, cx_Freeze, GIMP.

MAJOR PROJECTS

Indian Coffee House Problem

(February'14 - April'14)

Mentor: Dr. Prasanjeet Majumdar

Developed a web interface for conducting a research on cognitive abilities of humans to understand interlingual text. We used Gujarati and Bengali.

Starwars Robot

(February'14 - April'14)

Mentor: Dr. Nitin Raje

Developed a 3D robot using PyOpenGL which resembles a robot in Star-wars. The robot can fly, walk as well as run.

Carnival-Madness

(August'13 - December'13)

Mentor: Dr. Nitin Raje

Developed a 3D game using Panda3D and Python, which is like a 3D computer version of Temple Run difference being the protagonist can run in all directions.

FB-Gmail Notifier

(August'13 - September'13)

Guide: Dr. Rahul Dubey

Developed a short script to get notification from you Facebook and Gmail account on an embedded system. We used Arduino micro-controller for the connection between embedded device and PC.

Pharmassist

(June'13 - August'13)

Guide : Pranat Bhandai

Developed an android application which can act as a pharmacist thus making life of the user easier with my team member who is developing website for the same. Both the app and the website also synchronize with each other.

Tiny Shell

(February'13 - March'13)

Guide: Dr. Anish Mathuria

Developed a tiny shell in C of my own as a part of my System Software course project. It implemented basic feature like 'ls' and 'pwd'. Later, I also implemented Explicit Memory Allocator as another course project.

AWARDS AND ACHIEVEMENTS

- Received **The Best Student Researcher Award** for doing an outstanding research work as a part of my Summer Internship'14.
- Received a grant from IEEE Student Branch and IEEE Gujarat Section's SIGHT, for presenting my research work in IEEE HTC conference.
- Won 1st prize in I-app in I-fest organized by IEEE student branch, for making an android application named I-job.
- Received an AMUL Vidya Shree award for stellar performance in 10th standard. I was in top 100 students out of around million students who gave the exam.
- Received an AMUL Vidya Bhushan award for stellar performance in 12th standard. I was in top 100 students out of around 200,000 students who gave the exam.
- Bagged 1st price at GNLU's Pentagram and 2nd price at Synapse's Footloose, under the category of group dance.

COMMUNITY SERVICE

• Head R.J., Radio Club, DA-IICT.

(January'13 - Now)

Radio Club, DA-IICT, also received the best club award this year for revamping RJ shows.

- IEEE Executive Committee member, DA-IICT. (March'14 Now) Co-founder of SIG-Mobile Applications, DA-IICT. It works currently under IEEE Student Branch. I've been asked to serve as IEEE EXECOM member for the same.
- Coordinator, I-App, I-Fest. (September'13)

 Event was about developing best Android Application. Around 50 teams participated for the event.
- Coordinator, Synapcity, Synapse. (March'12)
 I was offered this position in my first year. Synapse is the largest techno-cultural festival in Gujarat.

ATTENDED CONFERENCES

- 11th International Conference on Foundations of Nano Science: Self-Assembled Architectures and Devices (FNANO'14), Snow Bird, Utah, USA.
- IEEE Region 10 Humanitarian Technology Conference (IEEE R10 HTC) 2014, Chennai, India.

COURSES

Natural Computing, Synthetic Biology, Data Structures and Algorithms, Probability and Statistics, Computer Games, System Software, DBMS, Embedded Hardware, Computer Organization, Analog Circuits, Computer Networks.

REFERENCES

Dr. Manish Gupta,

Associate Professor, DA-IICT. Email: mankg@daiict.ac.in

Dr. Anil Roy,

Assistant Professor, DA-IICT and IEEE Chair, Gujarat Section.

Email: anil_roy@daiict.ac.in