Rounak Sengupta

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EDUCATION

Arizona State University (ASU), Tempe, USA
Master of Science, Computer Engineering (Computer Systems)   May 2019 – Present
Master of Science, Information Technology *(transferred to CIDSE)*   Aug 2018 – May 2019

National Institute of Technology Karnataka (NITK), Surathkal, India
Bachelor of Technology, Electronics and Communication Engineering   Jul 2016
- **GRE:** Verbal: 164/170; Quantitative: 165/170; AWA: 4.5/6.0

Indian High School, Dubai, UAE
Grade 12, CBSE   Jun 2012
- **SAT Subject:** Chemistry: 800/800; Physics: 780/800; Math: 800/800

COURSE PROJECTS *(reports are linked to Github)*

Enrollment Prediction, ASU   Dr. Usha Jagannathan
Course: Information Analysis Modeling/Comm   Spring 2019
- Built a **Python** script to generate randomized data for 100 students as a JSON object and CSV file to store in **NoSQL** and **SQL** databases, respectively.
- Used data from **MongoDB** (the NoSQL database) to train a machine learning bot for predicting the enrollment number for a school for a particular year.

Assistive Brainstorming Bot, ASU   Dr. Robert Rucker
Course: Advanced Analytics for Big Data/AI   Spring 2019
- Used the **Chatterbot framework** to develop a chat bot that would use pricing models of competitors to help companies manage financials of their product sales.
- Scraped data using **Portia** and **BeautifulSoup4** frameworks, stored it into a **Couchbase database** and finally trained the bot on the data of 800+ companies

Ethereum BlockChain Chat Application, ASU   Dr. Mehdi Sookhak
Course: Advanced Information Systems Security   Spring 2019
- Developed a decentralized chat app using the **Ethereum** BlockChain network.
- Utilized a combination of web3 provider, **MetaMask** for the transaction wallet. Smart contracts were made in **Solidity** as the backend. The frontend was made in **AngularJS**, **HTML** and **CSS**. The project was finally hosted on **IPFS** for implementing a fully decentralized system.

Sticky Shirt Sales, ASU   Dr. Joseph Kuitche
Course: Software Development for IT   Fall 2018
- Developed a program for virtually trying out clothes and accessories online.
- Performed Image Processing and implemented a 3D portrait view of the customer, in **Python**.

Secure IP Camera, NITK   Dr. Ramesh Kini
Course: Major Project-I & II (Capstone)   Aug 2015 – May 2016
- Developed a video stream encoding hardware on a ZedBoard FPGA to provide secure remote access to networked IP cameras by adopting the End-to-Display Encryption paradigm.
- Implemented real-time compression and AES encryption modules on Zynq FPGA.

2048 Game on Nexys4 Artix 7 FPGA, NITK   Prof. Kiran Kumar Lad
Course: Digital System Design   Fall 2014
- Implemented the popular game 2048 on the Artix7 FPGA as a mini-project.
- Interfaced a VGA to the FPGA and generated the hardware logic for taking real time inputs on the FPGA from the user.

WORK EXPERIENCE

CloudPact (acquired by ASG Technologies), Hyderabad, India   Mr. Vignesh Swaminathan
Software Engineer   Jan 2017 – Oct 2017

- Adopted Agile SDLC for developing and maintaining existing client projects and mobile applications, therefore ensuring high Client Satisfaction Index.
- Conducted sessions with stakeholders to gather new requirements to continuously improve the existing state of the platform, Mowbly*
- Built and deployed Proof-of-Concept projects for incoming clients.
- Developed data mapping documents to translate business logic to technical requirements.

* Mowbly is the platform on which CloudPact builds cross-platform/hybrid mobile applications based on JavaScript.

INTERNSHIPS

Zemoso Labs, Hyderabad, India   Sep – Nov 2016
Defense Research and Development Organization (DRDO), Kolkata, India   Summer 2015

PROFESSIONAL COMPETENCIES

Additional Coursework:
- Adv. Data Structures & Algorithms
- Principles of Computer & Info Tech

Lab Experiences:
- VLSI Lab
- Communication Lab I & II
- Analog Integrated Circuits Lab
- Digital Signal Processing Lab
- Microprocessors Lab
- Digital Electronics Lab
- Analog Electronics Lab
- Computer Programming Lab
- Chemistry Lab
- Physics Lab

Databases:
- MySQL, MSSQL (SQL)
- MongoDB, Couchbase, Redis, Neo4j (NoSQL)

Languages and Software:
- Python, JavaScript, Java, C/C++
- PHP
- Verilog, VHDL
- MATLAB
- Xilinx ISE with PlanAhead tool
- ChipScope Pro

REFEREES:

1. Dr. Robert Rucker
   Lecturer, Information Technology, ASU
   Email: rrucker@asu.edu
   Phone: +1 (480) 727-4093

2. Mr. Vignesh Swaminathan
   CEO, Founder of CloudPact (acquired by ASG Technologies)
   Email: vignesh@cloudpact.com
   Phone: +91 9885106050
   Company website: CloudPact

3. Dr. M. R. Arulalan
   Assistant Professor of Electronics & Communications Engineering, NITK
   Email: mrarul@nitk.edu.in
   Phone: +91 9611110160