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**STRENGTH**

* 13 years expertise in Software Design & Development, Desktop Applications, Problem Solving, Troubleshooting, TDD, Agile/Scrum, Team Building/Handling, Resource & Release management.
* Recognized team player as IC/TL.

**WORK EXPERIENCE**

* **Intuit IDC, Bangalore** (Senior Developer) – Oct 2017 to July 2020.
* **Samsung R&D Institute, Bangalore** (Tech Lead) – Jun 2012 to Sep 2017.
* **Hewlett-Packard, Bangalore** (Technology Consultant) – Jan 2011 to Jun 2012.
* **Softjin Tech, Bangalore** (Senior Software Engineer) – Sep 2007 to Dec 2010.

**TECH SKILLS**

* Data Structures, Algorithms, OOP, VC++, C++, C, STL, Python, Sockets, C#, Java
* Linux, Windows, SVN, GIT, GitHub, Perforce, JIRA, JSON, XML, REST, SQL, .Net
* TCP/IP, HTTPS, TLS, SSH, Cryptography, PKI, Hashing, Sym/Asym Encryption, LPWAN (LoRa), WPAN (Zigbee, BLE), IPC
* Visual Studio, Source Insight, Vim, Eclipse, PyCharm, Bash, Perl, Wireshark, fiddler

**ACADEMICS**

* **M. Tech.** (CS, Hons.) from IIIT, Hyderabad in 2007
* **B.E.** (CS, Hons.) from Rajasthan University, Jaipur in 2005

**PROJECTS SUMMARY**

**Data Level Permissions in QuickBooks**

To limit the data level access at roles and user level. Restrict the user roles to perform activities (view/create/edit/delete/print) on selected records.

* Worked upon estimation, architecture and design of UI and business logic.
* Implemented DLLs to assign permissions functionality for product entities e.g. customer, vendor etc.
* Actively reviewed the code of peers.
* Quickly fixed even difficult & legacy bugs.
* Monitored daily project activities.

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**Migrate QuickBooks from 32bit to 64bit**

To enable the QuickBooks to run on 64bit platforms.

* Created new DLLs to enable network access for all the modules of the product with all the internet functionalities.
* Analyzed and understood the legacy code to write a new DLL.
* Implemented DLLs to enable internet communication of the product.
* Worked upon resolving flows among different DLLs.

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**Smart parking with LoRaWAN gateway for Smart City**

Setup a private LoRaWAN network using IoT devices e.g. LoRa motes (light & temperature sensors), LoRa gateway board and LoRa radio board with ISM band 863-870 MHz. These motes were installed at every slot of a parking area model. The sensors send the light intensity to the cloud via gateways over the secure LoRa protocol. The server processes the received data and feeds it to the user application to manage parking lot.

* Studied the latest IoT protocol LoRa.
* Configured the whole setup with sensors, gateways and internal cloud.
* Demonstrated the work in annual fest.
* Got awarded for the exceptional efforts.

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**NextGen Network Camera Software**

The tool provides a platform on IP surveillance camera, an eclipse plugin and an SDK package. A business owner can use the plugin to develop his business-specific applications to install on his IP camera.

* Developed the platform libraries for IP surveillance camera.
* Managed the plugin development and handled the team as project lead.
* Worked closely with client for commercialization on-site.

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**Combine multiple mails for same customer in QuickBooks**

To enable sending all the invoices/statements of a customer in a single mail through different mail clients e.g. outlook/webmail.

* Participated in design and code reviews.
* Implemented the business logic of the feature.
* Handled daily project activities.

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**IIF (Intuit Interchange Format) Import in QuickBooks**

To fix the errors while importing IIF files. IIF files are imported in Quickbooks to add the lists and transactions in the Quickbooks company file.

* Implemented a DLL to create all the UI windows for the feature.
* Worked on troubleshooting and fixing all the production bugs at UI and backend.
* Worked closely with UX team to close the issues quickly.

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**IoT Gateway for Smart Building**

Design protocols to create/send & process data packets from web client till IoT gateway. The IoT gateway sends commands (pair, unpair, get/set power, get/set dimming level, get/set configurations, fetch gateway info, scan BLE beacons, connect / disconnect beacons etc) to the end devices (e.g. humidity & temp ZIGBEE sensors, motion ZIGBEE sensors and BLE beacons) through ZIGBEE and BLE protocols.

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**Music Parser for SVoice**

Parse json of music agent in svoice app of Samsung on Tizen OS. An utterance (e.g. play music) at a device is encoded and sent to cloud server. The cloud server converts voice to text and sends to NLU server. The NLU server creates a json and sends it back to the originating device. This json is parsed for music agent and the action is executed on the originating device.

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**IoT Hub for Retail**

Retail hub gives access of all the devices in shop to the shop owner. The owner can connect to the hub through an app or a web link. He can manage and monitor the devices and the employees schedule remotely.

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**Multi Device Communication for Smart Home**

Write a protocol to take a command on one device (tizen/android) and render it on another one (homo/hetero) in the vicinity. The sending device scans the nearby Bluetooth devices, selects one and sends a command (e.g. open camera, play song etc). The receiving device renders the command on itself.

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**“Smart Things” Parser for Smart Home Hive**

Hive is an IoT based device for smart home. An utterance (e.g. good morning) at a device is encoded and sent to ASR server. The ASR server cloud converts voice to text and sends to NLU server. The NLU server creates a json and sends it back to the originating device. This json is parsed for smart things agent and the action is executed on the originating device.

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**AWARDS AND ACHIEVEMENTS**

* AWARDS under **win together** and **passionate** categories in Intuit IDC.
* AWARD for excellent performance in **Smart Parking with LoRaWAN gateway**.
* **EMP OF THE MONTH** award for excellent performance in Smart Building project.
* AWARD for excellent performance in Smart Home project.
* Efficiently led a project which won **ANNUAL AWARD** in Samsung R&D Institute.
* Efficiently led a project which won **TEAM AWARD** from client (Samsung Techwin, South Korea) for excellent performance and timely deliveries.
* Achieved **ADVANCED LEVEL** in programming competition in Samsung.
* Won prize in ONLINE PROG CONTEST **HPE Master Maze** by Hewlett Packard.
* **TOP RANK** in the class and THIRD in batch in B.E.
* **SCHOLARSHIP AWARD** for TOP RANK in the college in B.E. Second Year.
* Qualified GATE 2005 with 97+ score.
* Finalist in Chess Championship.

**CERTIFICATES**

* **Advanced C++** from *Microsoft* through EdX.
* **Version Control with GIT** from *Atlassian* through Coursera.
* **Certified Associate Programmer** from *C++ Institute*.
* **Using Python for Research** from *Harvard* through EdX.

**TECH ACCOMPLISHMENTS**

* Delivered a tech talk & presentation on **GIT & GitHub.**
* Developed a round-robin words-chain app in python for multiple-players/two-players on different-machines/same-machine with client-server communication.
* Demonstrated the work done on **Smart Parking with LoRaWAN gateway** in NIPUN 2016, the annual Tech Fest of Samsung R&D Institute, Bangalore.
* Demonstrated the work done on **Network Camera Software** in NIPUN 2013, the annual Tech Fest of Samsung R&D Institute, Bangalore.
* Developed a game, **Boss Puzzle**, in C++.