DHANANJAY KUMAR SINGH

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EDUCATION

- Master in Computer Science and Engineering, Sept 2017 - May 2019, Santa Clara University
- Bachelor of Engineering in Information Technology, Sept 2011 - May 2015, Silicon Institute of Technology

Research Assistant, Santa Clara University   Oct 2017 -present

- Assisting Prof. Behnam Dezfouli (SIOTLAB, Computer Science and Engg. dept., Santa Clara University) on real-time and reliable low-power wireless mobile networks
- Working on energy efficiency aspects of communication in **IOT systems using MQTT**, CoAP and HTTP protocol
- Developing new methods of monitoring AP traffic, connecting with AWS, directing client sleep durations and antenna configurations, and inspecting packets

Teaching Assistant, Santa Clara University   Oct 2017 - present

- Assisting Prof. Farokh Eskafi for graduate level course on Mobile application development. Helping him on developments of teaching materials, course coverage, student assignments and **Android studio** tutorials
- Developed applications which leverages Fragments, GestureDetector and Manifest permissions
- Developing Cloud base mobile applications for synchronizing and maintaining data across various devices

Senior Software Engineer, Infosys Limited   May 2015 - Aug 2017

- Developed cloud services brokerage applications using Core Java and Hibernate which involves aggregation, integration and customization of cloud services
- Reduced processing time of proprietary data adapters by 35% using advanced algorithms
- Optimized average modification and retrieval latency of files to 80% by tuning cache and indexing configuration of SAP PI
- Debugged and fixed more than 30 bugs in SEEBURGER data integration module
- Worked on design documentation, development and unit testing of business data exchange solutions
- Developed tool for auto-configuration of protocol-filtering, bandwidth, clustering and load-balancing components of BIS secure proxy firewall
- Led a B2B transaction project built on top of GXS with a team of 4 which involves automatic file format conversion between any pair of major EDI transaction types

GRADUATE ACADEMIC PROJECTS

- Designed and implemented an IOT- Home security solution to restrict unauthorized entry using Raspberry Pi and Arduino
- Created a multi-user android chat application using Android SDK and Firebase real-time database

UNDERGRADUATE ACADEMIC PROJECTS

- Designed and implemented **Intruder Detection for Sinkhole Attack in Wireless Sensor Networks** using C++, Eclipse CDT and Omnet++
- Designed and implemented **countermeasures against Denial of Service attack** using UDP bombing & TCP SYN flooding using C and Eclipse CDT.
- Designed and tested **accumulator** used to accumulate intermediate results while performing multiplication in HW using Veriwell and Verilog
- Designed and implemented **web proxy server with LRU** page replacement policy using Java and Eclipse
- Designed and implemented **crawler based web-search** application to pick relevant pages out of a fixed set of 100 pages based on supplied keyword using Java and Eclipse
- Designed and implemented **page-ranking algorithm** to sort relevant pages after a web-search prototype using Java and Eclipse
- Created a **photo-sharing android application** using Android SDK, Socket Programming, Java and Eclipse
- Created a text based **multi-chat android application** using Android SDK, Socket Programming, Java and Eclipse
- Designed and implemented **min-cable-connect**. It is an application which operates over a city graph connecting all sub-areas and constructs shortest spanning tree using Kruskal's algorithm. It is used while planning layout of telephone and TV cables using JAVA AWT and Eclipse

TECHNICAL SKILLS

- **Languages**: GO, Python, C, C++, JAVA SE, JAVA EE, ABAP, HTML, CSS, Javascript, PHP, PL-SQL, Assembly Language
- **Database**: Redis, ETCD, Mongodb, Microsoft SQL server, ORACLE, MYSQL
- **Application Frameworks** : SAP NetWeaver, GXS, SEEBURGER (ERP software), Eclipse, Netbeans, MS Visual Studio, Ionic, Android Studio
- **Server Environment:** Nginx**,** Apache
- **Software Packages:** Adobe Photoshop, Dreamweaver, MATLAB, Microsoft Suite, Veriwell
- **Operating Systems**: Core OS, Android, Linux (Fedora, Ubuntu), UNIX, DOS, Windows

TECHNICAL PARTICIPATIONS AND ACHIEVEMENTS

- Participated in Google Summer of Code 2013
- Participated in coding competition ACM ICPC 2013, Kolkata
- Participated in Infosys Campus-connect competition