TANMAY WADHWA

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OBJECTIVE

Seeking a challenging position to implement my classroom learning and previous experiences for my and the organization's mutual growth.

EDUCATION

University at Buffalo, the State University of New York. **[Aug 2013-Dec 2014]**

- **Master of Science (**Computer Science**)**
- **Course Profile :** Algorithms, Information Retrieval, Machine Learning, Software Engineering, Project Management, Distributed Systems, Operating Systems, Multimedia Systems, Advanced Computer Systems and a Seminar on Mobile Sensing.

Maharshi Dayanand University (World Institute of Technology), India **[May 2008-Jun 2012]**

- **Bachelor of Engineering** (Computer Science)
- Graduated with **First Division.**
- Chosen as **"Best All-Rounder"** for the Class of 2012.

PROFESSIONAL EXPERIENCE

University at Buffalo, the State University of New York. **[Oct 2013-Present]**

Position: Student Technical Assistant.

- Working part time at the Office of Information Resources in the School of Dental Medicine, University at Buffalo. Actively involved in providing **IT infrastructure support** and Desktop support to students and faculty of the school.

HCL Technologies, Noida, India. **[Aug 2012-Aug 2013]**

Position: Junior Analyst.

Worked at the Infrastructure Division of HCL Technologies, specifically in the project pertaining to the requirements of CEVA Logistics (Eagle Global Logistics). HCL provided Infrastructure: Exchange, Citrix, Linux, Windows server support to Ceva Logistics.

- **Provided remote desktop support** to windows systems and local applications for Ceva internal employees.
- **Acted as the first point of contact for Ceva Employees.** Dealt with local issues and forwarded server/application issues with correct priority to the concerned teams.

CMC Ltd, New Delhi, India. **[Jun 2010-Aug 2010, Jun 2011-Aug 2011]**

Position: Software Intern.

- Trained on **J2SE** and **J2EE.** Worked in a team and actively contributed towards the creation of an **email engine** primarily using J2EE (JSP & Servlets), HTML, CSS, and SQL as the database, Also contributed towards the creation of a Local Enterprise IM application using J2SDK.
- Offered a **full-time position** after the completion of my undergraduate studies.

ACADEMIC PROJECTS

University at Buffalo, the State University of New York

-Quantified Self (Android Framework| Research Project) **[Aug 2014-Present]**

- Creation of a personalized middleware that generates user centric behavioral data using phone sensors and makes the same available to user level apps through a separate API. The middleware monitors sensor data, not necessarily just from the phone, but to attain user behavioral statistics. **Tools/Software Used: Android 4.4 Source, Eclipse, Linux, GIT, JDK 6.**

-Mini Amazon Dynamo (Distributed Systems) **[Feb 2014-May 2014]**

- Simplified implementation of Dynamo: Amazon's Highly Available Key-value Store. Achieved scalability and availability by 1) Data partitioning and 2) Data replication using consistent hashing, and 3) Node Failure handling mechanism. The application supported concurrent operations, failure handling and recovery. **Tools/Software Used: Java, Android SDK, Eclipse.**

-Multi Source Search Engine (Information Retrieval) **[Oct 2013-Dec 2013]**

- Created a multisource search engine running on Wikipedia, WikiNews, WikiQuotes and WikiBooks. Implemented the middleware using Java Server Pages, Servlets and user interface on HTML and CSS. Used Solr to index and search the respective data and queried Solr through its own web server hosted on Jetty. **Tools/Software Used: Eclipse IDE, Apache Solr, JDK, JSP, Servlets, Apache Tomcat.**

-Handwritten digit recognizer (Machine Learning) **[Oct 2013-Dec 2013]**

- Implemented One-vs-All Multiclass Classification technique and achieved 96.34% and 95.56% correct predictions respectively using Logistic and Neural Network Classification. **Tools/Software Used: MATLAB**

-Kernel Development, OS-161 (Operating Systems) **[Feb 2014-May 2014]**

- Implemented Virtual Memory Subsystem, File System, Process System Support and Synchronization Primitives for the OS/161 kernel. **Tools/Software Used: Eclipse C, OS-161, GNU Debugger.**

-Totally and causally ordered group messenger (Distributed Systems) **[Feb 2014-May 2014]**

- Created an android application that achieved total and causal ordering in a group chat environment by combining a sequencer based algorithm for total ordering along with a vector clock based algorithm for causal ordering. **Tools/Software Used: Android SDK, Eclipse.**

- Digital video, image coding and compression (Multimedia Systems) **[Feb 2014-May 2014]**

- Encoded and compressed images using JPEG, run length and Huffman coding. Did the same with P frames in video and applied Motion Estimation on I frames to achieve considerable compression in Video. **Tools/Software Used: MATLAB.**

LEADERSHIP AND MANAGERIAL SKILLS

- Organized the inter college festival "Fiesta Vistoso" **2011** as the "**Head Coordinator**".
- Managed technical events at the inter-college Festival "Fiesta Vistoso 2010" as the "**Technical Head Coordinator**".
- Volunteered to be the **Campus Ambassador** for **Starpreneur** (Nurture Talent Academy).
- Volunteered for the **XIX Common Wealth Games** Delhi 2010.

EXTRA-CURRICULAR ACTIVITIES

- **Awarded 1st Prize as a Debater** at the inter-college festival "Fiesta Vistoso" 2011.
- **Awarded 3rd & 2nd Prizes in the "Group Discussions"** at the inter-college festival "Fiesta Vistoso" 2010 and 2011 respectively.
- **Represented College** at various Debating events including debates at IIPM and Apeejay College of Engineering.
- **Represented School in programming events** at Quanta, CMS Lucknow. An inter-school festival with teams from all **over India and various countries including USA, Russia, UK, South Africa, etc.**

SKILLS & PROGRAMMING EXPERIENCE

- **Java (J2SE, J2EE, Servlets, JSP, JDBC), C++, C, HTML, CSS, Linux, Windows, Macintosh, Eclipse, Apache Solr, Lucene, Matlab, NetBeans**, **Android API, GIT, Distributed Systems, Android Source,** Event and error-driven programming, Software project management, Research interests in mobile sensing and the internet of things.