Sandeep Jain

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SUMMARY

Creative computer scientist with degrees in **Physics**, **Engineering and Applied Science**, and **Computer Science** from **top American universities**. Background in developing mobile applications for the **iOS platform** and in developing **Java based web applications**. Expertise in **UML** based object oriented modeling and design. Experience and expertise in **neural network** based pattern recognition and signal classification applications. Currently working as the **CEO** of **MatruWeb**, a company dedicated to localizing English language websites to Indian languages such as Hindi.

EDUCATION

Master of Computer Science (1999)
University of Illinois at Urbana-Champaign, Urbana-Champaign, Illinois, USA

BS, Engineering and Applied Science (1991)
Focus Area: Computation and Neural Systems
California Institute of Technology, Pasadena, California, USA

BA, Physics (1991)
(Joint Dual-Degree with the California Institute of Technology)
Pomona College, Claremont, California, USA

PROFESSIONAL EXPERIENCE

Founder & CEO • MatruWeb, Noida, India • Jan 2016 - present
MatruWeb is dedicated to localizing and translating India based English language web content from English to Hindi and other Indian languages. There is a compelling need for such services, because the number of Indian language literate people in India far exceeds the number of English literate people. My approach is to try to come up with a machine learning based software tool to convert text from English to Hindi and to other Indian languages. Current machine translation tools don't do a very good job of English to Indian language machine translation.

Co-Founder & Chief Technology Officer • Banyan Logic, Noida, India & Virginia, USA • 2014 – 2016
Banyan Logic offers consulting services for the implementation and deployment of Customer Relationship Management (CRM) products. These products are typically deployed on a Cloud platform. My role was to take responsibility for the company's deliverables.

Independent Software Consultant, Noida, India • 2001 – 2014
Projects include:

- **iPhone Application Lead Developer** for Tech urSelf
  Worked remotely (from India) with Tech urSelf, a California based company, developing for the iOS platform. Their flagship product, urWell, offered a platform for people to track their wellness.
  Technology: iOS, Xcode, Objective-C.

- **iPhone Application Owner/Developer**
  Developed an iOS Application, "Planet Laws - Know Your Solar System". The app (among other things) solves the differential equations of gravitation, and shows the simulated path of a sample

planet around the Sun. The app is built on the Core Animation technology of the iOS platform. url of the app is: http://itunes.apple.com/us/app/planet-laws-know-your-solar/id418516576
Technology: iOS, Xcode, Objective-C, Core Animation.

- **Web Application Developer** for Agilent Technologies
  Led a team of developers to migrate Agilent's BroadVision based content management system for its website to a Java (J2EE) based web application.
  Technology: Java, JSP, Struts, iBatis data access framework.

Technical Lead • TechSpan (now Genpact), Noida, India • 1999 – 2001
Worked on a number of projects. Some samples:

- **COM2Java Migration Tool** for Sun Microsystems
  Created a compiler to compile Microsoft COM files into Java interface declarations.
  Technology: Java AWT, java cc (Java Compiler-Compiler), COM, MIDL.

- **TeleMail**, a tool to access email via telephone
  Led an R&D group to develop an innovative product to convert email text into a telephone-accessible interface. Originated concept and co-developed the product.
  Technology: Visual C++, Microsoft Text-to-Speech engine, Microsoft Telephony API.

Independent Tutor and Trainer • New Delhi, India • 1994 – 1998
Tutored students at the American Embassy School in New Delhi in mathematics, science, and computer science, and gave training in programming to prospective software professionals.

Software Engineer • California Scientific Software • Nevada City, CA, USA • 1991 – 1994
Developed neural network pattern recognition software. Invented a novel neural network based technique of classifying biomedical signals that was tried on two problem domains and produced more than 95% signal classification accuracy in both problem areas.
Technology: C++ for the DOS/Windows 3.1 platforms, BrainMaker Neural Network Simulation Product

Research Assistant • Pine Lab, California Institute of Technology, Pasadena, CA, USA • 1990 – 1991
Built an electronic interface between a square array of microscopic silicon wells containing live biological neurons, and a computer which could stimulate the neurons and record their responses.

Summer Undergraduate Research Fellow • Jet Propulsion Lab • Pasadena, CA, USA • Summer, 1989
Participated in an experimental project to bring JPL's technology to the automobile industry.

COMPUTATIONAL SKILLS

Languages:	Java, Objective-C, C/C++, SQL, XML, HTML, Javascript
Frameworks:	Struts, MyBatis, Servlets, JSP, J2EE / Java EE, iOS Frameworks
Tools:	Tomcat, Eclipse, Xcode, Rational Rose, Subversion, Git
Databases:	MySQL, Oracle
Other:	User interaction design, UML based design, Database modeling, Project Management, Cloud technologies, and Neural Networks

AWARDS and HONORS

Recipient of an undergraduate scholarship awarded for a BA-BS joint dual-degree program at Pomona College and the California Institute of Technology, respectively.

Awarded the Tileston Physics Prize at Pomona College - Award Criteria: The junior physics major whose record is considered the most promising.