

KARAN KAMDAR

EDUCATION	Stanford GSB – Stanford Ignite Global Entrepreneurship 2015 Admitted as a fellow and led a team of 6 for our business idea – DiOne: India’s First Programmable Drone Kit.
	University of California, Irvine – M.S. EE, concentration ACE 2008 - Recipient of the Director’s Fellowship Award from the School of Engineering for the academic year 2006-07 at the Arts, Computation and Engineering program. - Funded for research in synergistic AI and co-operative robotics at the New Media Arts Lab of California Institute for Telecommunications and Information Technology (CALIT2).
	University of Mumbai, India – B.E. Information Technology 2006 Graduated Cum Laude and secured first rank in the final year (BE-IT).

POSITIONS	Advisory Board Member, SEDS India & Indian Space Conclave’ 17 March 2017 Students for the Exploration and Development of Space.
------------------	---

EXPERTISE	AI, Multi-Agent Systems, Algorithms, UAV Hardware and Software, Swarm Robotics, Wireless Sensor & Actuator Networks, Web & Mobile Applications
------------------	--

SKILLS & ABILITIES	<u>Software Skills:</u> 1. Languages: C, C++, C#, Python, Java, React, NodeJS, Ruby, PHP 2. Libraries and Toolkits: Matlab, OpenCV, TensorFlow, Scikit-Image 3. Operating Systems: Linux, Windows, TinyOS 4. Databases: MongoDB, MySQL, Oracle
-------------------------------	---

<u>Hardware Skills:</u> 1. Experience with PCB Design and Fabrication 2. Experience working in a Machine Shop (drilling, milling, lathe)

<u>Entrepreneurship:</u> Founded 1 Martian Way in Dec 2014.

EXPERIENCE	CEO – 1 Martian Way Corporation (1MW), Mumbai, India December 2014 – Present Description: Leading a team of passionate individuals to build world class products and services in the fields of AI, drones and robotics. Key projects: 1. xFleetY – UAV Airspace Management Software for India’s aviation authority DGCA. 2. AirDiff – High speed Image Registration and Change Detection Engine for multi-mile aerial datasets to monitor heavy infrastructure assets such as oil and gas pipelines.
-------------------	---

3. 1MW Backduck – AI driven web/mobile platform for multiple application domains such as healthcare, ecommerce, racing etc. using React, NodeJS and MongoDB.
4. IDRL, Indian Drone Racing League (IDRL) – India’s first and only drone racing league with over 400 registered pilots.
5. 1MW Flysole – A Drones as a Service platform or “Uber for Drones” for which we were the top 10 finalists at the Uber Pitch 2016.
6. 1MW Industrux – An autonomous package delivery drone for Bajaj Auto as part of their Industry 4.0 initiative.
7. 1MW Sitara – An autonomous drone for surveying, mapping, inspections and agriculture which was demonstrated in front of the Defence Minister of India.
8. 1MW Drone Swarm – Python + Mavlink based co-ordinated drone formation and sequencing software for research and edutainment purposes.
9. India’s first 360x360 Aerial Videography for the French company Guerlain.
10. 1MW Chess Robots – An Autonomous Swarm of Life-Sized Chess Robots.
11. 1MW Burger Dropping Drone – India’s first food delivery using drones for Burger King.
12. RoboLand India – Developed and deployed interactive applications as part of India’s first human-robot gaming zone.

Technical Director, India – Checkmarx, India

July 2014 – August 2014 (1 month)

Description:

Provide on-premise training and installation support for Checkmarx clients in India. Left after 1 month when I discovered my true calling with 1 Martian Way.

Systems Software Engineer – UgMO Technologies, CA

September 2009 – June 2013 (3 years 9 months)

Description:

Embedded Firmware/Algorithm/Application Software development for networked soil monitoring devices for water conservation.

Environment:

MSP430 microcontroller, C, C++, C#, Java, PHP, MySQL, Ruby on Rails, JavaScript, Omnet, TinyOS, IAR Embedded Workbench, Eclipse IDE.

Roles & Responsibilities:

1. Developed embedded software in C, C++ for underground soil monitoring devices.
2. Developed Watering Algorithm for the UgMO Controller.
3. Developed desktop applications in C#/Java.
4. Developed web applications in PHP/MySQL/Ruby on Rails/JavaScript.
5. Developed XMesh based TinyOS applications for soil monitoring devices.
6. Developed firmware for the company’s patented SenLink network over 900Mhz/433Mhz.

Firmware Engineer – RoboTeamX (Bizware Online Applications, Inc.), CA

September 2007 – August 2009 (2 years)

Description:

Embedded Software architecture and Hardware development for autonomous, communicating and synergistic mobile robots that can accomplish complex tasks.

Environment:

C, MATLAB, AVR ATmega328, ZigBee, UCI Fabrication Shop, Custom PCB design using CADSoft Eagle and custom electronics to drive mobile robot sensors and actuators.

Roles & Responsibilities:

1. RoboTeamX was an offshoot of my Master's thesis at UCI in building an intelligent robot communication framework, with startup funding from Bizware Online Applications Inc.
2. Built the Cooperative Robot Arbitration and Command Language (CRACL) to demonstrate robots that work as a team to accomplish complex tasks.
3. We demonstrated this as part of a team of 16 autonomous robots that communicate and arbitrate amongst themselves to play chess against 16 humans on a large-scale chess board.
4. RoboTeamX robots competed in a series of chess games against humans at the Discovery Science Center in Santa Ana, CA and at LEGOLAND California.

Flex Programmer (Technology Intern) – Digibag.com, CA

April 2007 – July 2007 (3 months)

Description:

To build a new music delivery and distribution platform called DigiVendor enabling independent artists and record labels to sell digital music and media from any website across heterogeneous client devices using an embeddable Flash media player.

Environment:

Flash, Flex, MXML

Roles & Responsibilities:

1. Part of the software development team for the DigiVendor embeddable Flash player.
2. Part of the software development team for the Automated Royalty Payment System (ARPS) module using Flex for real-time revenue reporting, one-touch auto upload and encoding of media and a central content database to cross-sell with other vendors.

**Assistant Software Researcher – TATA Institute of Fundamental Research (TIFR),
Mumbai, India**

Jun 2003 – Mar 2006 (2 years 3 months)

Description:

To develop a platform independent middleware architecture for heterogeneous servers and clients to communicate across different platforms and mobile devices using CORBA.

Environment:

Java, NetBeans, KQML, Java ME, Servlets, Apache Tomcat, Linux, CORBA, multi-threading.

Roles & Responsibilities:

1. Developed interface specification using CORBA Interface Definition Language (IDL) for agents written in languages such as Java, C++, C# to communicate across CORBA IIOP ORB.
2. Developed Dynamic Invocation Interface (DII) and Dynamic Skeleton Interface (DSI) to allow server-side skeletons & client stubs to have compile time knowledge of type of object.
3. Developed D-ACL: a distributed message passing platform for agent communication.
4. Developed APIs over D-ACL: an ontological framework with negotiation algorithms.
5. Developed server-side architecture using Apache Tomcat as a servlet enabled web server.

AWARDS / HONORS

1. IBM CPMX8 2017 Finalist & Winner of Medical Vertical (July, 2017), Mexico

Part of the 3-member team of TogetherWeFight - Breast Cancer Monitoring and Assistance App powered by Big Data and AI.

2. UberPitch 2016 Top 10 finalist:

Our company 1 Martian Way (1MW) was among the top 10 finalists at Uber Pitch 2016 from thousands of startup applicants across India.

3. Microsoft BizSpark (April 2016):

1 Martian Way accepted into the Microsoft BizSpark program.

4. Stanford University – Stanford Ignite Fellow (March 2015):

Granted a full fellowship to the Stanford Ignite Global Entrepreneurship Program.

5. UCI Director's Fellowship (2006):

Granted a full fellowship to UCI for the 2006-07 academic year.

6. NYU Reynolds Program for Social Entrepreneurship (2006): Selected as one of the 100 sponsored finalists who participated in New York University's Catherine. B. Reynolds Program in Social Entrepreneurship in New York City.

7. Computer Society of India (CSI) Winning Paper (2003): Won the CSI Best Paper on our project ANNCRIPS - Artificial Neural Networks for Cancer Research in Prediction of Survival.

8. National Scholarship (2000): This scholarship sponsored my education for the year 01-02.

9. United World Colleges' Full Fee-Paying Scholarship (2000): This scholarship which I declined had been offered to me for completing my undergraduate education in the US.

10. XLFTS All India Talent Search (1997): This scholarship sponsored me on a student exchange program to Europe.

11. Maharashtra Scholarship (1997): This scholarship sponsored my school education for the year 97-98.

12. Homi Bhabha Young Scientist Award (1996): Silver medalist at the Homi Bhabha Science Competition and selected for advanced course at the Nehru Science Centre, Mumbai.

UCI MASTERS THESIS

M-CLE: An Embodied Constructivist Learning Environment

M-CLE is a physical learning environment in which synergistic AI through the use of robots (autonomous creative agents) is employed to embellish the creativity of a child.

<http://karankamdar.wikidot.com/m-cle-fall-08>

PRESS

1. 1 Martian Way (1MW) featured in BusinessWorld:

<http://www.businessworld.in/article/Drones-Clipped-Wings/15-05-2017-118167/>

2. Publications & Press on IDRL, Indian Drone Racing League can be found at:

<https://droneracingindia.com/media>

3. Video Interviews on 1 Martian Way (1MW) can be found at:

<http://1martianway.com/press>

4. 1MW UberPitch 2016 Top 10 Finalists Article:

<http://techcircle.vccircle.com/2016/12/22/exclusive-meet-the-finalists-of-the-uberpitch-2016-challenge/>

5. 1MW StartGuru Video Interview: <https://youtu.be/PuVs4PxGxSo>
6. First Year Project at UCI published as part of the Fall 2007 issue of [CALIT2](#) (California Institute for Telecommunications and Information Technology) Interface Magazine: <http://karankamdar.wikidot.com/press>
7. CBS Channel 2 video of the RoboTeamX Chess Robots: <http://www.youtube.com/watch?v=Io3pV4AUQHo>
8. The Orange County Register video of the RoboTeamX Chess Robots: <http://www.youtube.com/watch?v=mgiYL3ZvSp8>

CONTACT**Karan Kamdar**

Email: karan@1MartianWay.com

LinkedIn: <in.linkedin.com/pub/karan-kamdar/7/b86/729/>

Portfolio: <http://karankamdar.wikidot.com>

1 Martian Way: <http://1martianway.com>

IDRL: <http://droneracingindia.com>

502 Satya Sadan, Bhimani Street, Matunga East, Mumbai – 400 019, India

Cell: +91 8850-227233
