"I enable passionate individuals and organizations to successfully transition and thrive in the new Data Economy by finding their edge, without compromising on their vision, even if they are new to Data Driven culture."

"If this was possible I would give Manuj 7 stars. He is extremely intelligent, knowledgeable and very well organized and detail focused. His math ability is astounding, but he also has a great creative problem solving ability. I couldn't be happier with Manuj!"
- **Geoff Kwitko**, Made and sold two companies, Called the "Sherlock Holmes" of Digital Marketing in Australia

"Manuj has great programming skills. His deep knowledge is also a big plus. He's also a great team worker with a charming personality."
- **Stefano Tabacco**, Lead Back-End Engineer, Skodel, Australia

"I have known Manuj for past fifteen years and I can very well say that he was instrumental in motivating and inspiring me. His dedication and focus are unparalleled. Always motivated and inspires other to achieve, always raising the bar for himself and all those around him. He is an excellent technical artist with an eye for detail."
- **Kamal Bhardwaj**, Worked on Movies such as Tarzan, Iron Man 3, Sully, Okja et. al as VFX Artist

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data: (plural, datum) — Sanskrit, Latin - To give. To impart

Professional Experience

Sawy Technology LLP - Business unit of MAGES Pte. Ltd., Singapore   **Data Science Consultant**

**June 2021
Present**

- Setting up Data Science Edu-Tech company for a Singapore based MAGES Institute.

- Project : CoreTrader - an intuitive, object-oriented, state-based, and messaging-enabled backtester capable of effectively analyzing stock market data. It boasts distinctive features often missing from commercial back-testing frameworks, such as multi-timeframe analysis and simultanious custom buy-sell logic for different strategies. CoreTrader's non-black-box approach provides easy access to underlying data structures, facilitating debugging and a better understanding of strategy performance. https://youtu.be/cJYCy7W1b8o

- Project : Stock Cycle Forecast - Forecast the cycles of specific stocks with 90% accuracy. Demo available upon request.

- Project : Custom Duration Analysis - The software focuses on the analysis of stock returns over user-specified time durations, allowing for dynamic computation of generated returns for any chosen period. https://youtu.be/6U7XOHygIJM

- Project : Historical Max Runs Analysis - A tool that computes the greatest increases and decreases of financial instruments within user-defined timeframes. By producing charts and analytical data, it aids in forecasting future price objectives. https://youtu.be/q_GxpCJripQ

- Project : Weekday Analyzer - This analysis tool examines the returns of financial instruments on a specific weekday basis, instead of the typical daily, weekly, monthly, or yearly analysis. https://youtu.be/Hf7K1kP_jY4

- Project : NIFTY50 52 week Correlation Study - The project is a stock and sector wise correlation analysis of NIFTY50 over a period of 52 weeks. https://bit.ly/niftycorr

- Project : Portfolio Optimization Tool - Portfolio optimization tool employs methods like Monte Carlo Simulation and Mathematical Optimization to calculate the efficient frontier. https://bit.ly/optport

- Project : SIP Return Analyzer - Calculates correct SIP returns. https://bit.ly/sipret

- Project : Price Range Forecast - This is a price range forecast tool. The user can choose the training period and the forecast period. The tool also helps in calculating the probability of price closing between any two price points. https://youtu.be/mi-AX_ndof4

- Research on Statistical Model for an Expert System for an Australian Client.

Northcap University   Data Science Consultant

**December 2018
June 2021**

- Revamped the Data Science vertical of Northcap University.

- Developed more than 2000 hours of innovative Data Science courseware and also up-skilled their entire Data Science fraternity including PhDs. This work immediately benefited more than 500 students and continues to help more.

- Within two years, the undergraduate program by The NorthCap University was rated fifth best pan India and to have one of the best pedagogy scores. It also has one of the best graduation outcomes of 96-99% with the average placement rate of 99%. Many trained students have gone to win prestigious Data Science competitions.

Mages Studio Pte. Ltd. Singapore   Emerging Technologies Consultant

**September 2017
November 2018**

- Hands-on development, mentoring and consulting on the fusion of AI with serious games to develop socially beneficial simulations which help children of special needs for eg. ADHD to live a normal lives.

Mages Institute of Excellence Pte. Ltd. Singapore   (Visiting) Principal Lecturer, Gaming

**August 2016
August 2017**

- Trained game programmers in C#, engine design and development, Unity3D, AI, Gameplay Programming, virtual and augmented reality.

- Trained senior professors from NUS and other reputable institutions in Singapore.

Mages Institute of Excellence Pte. Ltd. Singapore   Consultant

**August 2017
July 2016**

- Consulted and developed on numerous serious game projects.

NZTechnologies Pvt. Ltd.   Consulting Director of Development

**August 2013
December 2015**

- MANAGEMENT : Design and deployed Project Management pipeline, development processes, team appraisal system, training system and productivity processes to increase team efficiency and accountability. Created and maintaining the company wiki.

- Technical Direction : Successfully developed and delivered 15 profitable projects

LeewayHertz Pvt. Ltd.   Game Technology Lead

**September 2012
August 2013**

- Laser Pegs: Developed 3 versions of Lego-like modeler for kids (CAD for Kids) in Unity3D for an American company Laser Pegs. The App was available for iPad and Android Tablets and was featured by Apple on their App Store.

- Participated in the development of the core gameplay, AI, product design and experience.

- Trained in-house Unity3D developers

MicroObjects Pvt. Ltd.   Game Director

**January 2012
August 2012**

- Lead a team of programmers and artists to ship 2 mobile games - Fastline Tractor (Racing) and TrexHunt (FPS)

Kode Infotainment Pvt. Ltd.   CTO, Director, Co-founder

April 2007
October 2011

- Trained game programmers currently employed in-house, and in national and international organizations in C++, engine design and creation, DirectX, AI, Gameplay Programming et. al.

- Conceptualized, designed, managed and produced a PC casual game title – Robosoccer

Sage Infolabs Pvt. Ltd.   CTO, Director, Co-founder

April 2006
March 2007

- Started India's first game programming/AI school.

- Trained game programmers in C++, engine design and creation, DirectX, AI, Gameplay Programming et. al. Successfully placed in industry.

Others

April 2001
March 2006

- Paprikas Animation Studios (now Technicolor), Team Leader, Renderman Shader Programmer, July 2004 - January 2006

- Vbeing Software Pvt. Ltd., Senior Game Programmer, December 2003 - July 2004

- Moving Picture Company India Pvt. Ltd., Technical Artist, January 2003 - September 2003

- Xion Solutions (March 2001, 3D developer)

- Digital Talkies (November 2001, Technical Media Animator)

- Carrot Interactive (July 2002, Technical Artist)

- Game Force Magazine (November 2001, Technical Author)

Skills Summary

- **Technical Leadership** – Guiding a team of (remote) technologists and stakeholders to deliver business objectives within time and budget. Researching solutions to technical problems.

- **Mentoring** – Consistently highly rated mentor (nationally and internationally) across Data Science domain.

- **Business Intelligence** – Condensing operational data into dashboards/visualizations to enable effective business decision-making at a glance. Understanding business requirements and translating it into action items for the development team.

- **Data Engineering and Warehousing** – Automated extraction of data from OLTP databases and organizing and storage in modern OLAP databases in denormalized form for data analysis and predictive analytics.

- **Machine Learning** (Shallow Learning, Deep Learning, Feature Engineering) – Enriching data to extract signal from OLAP databases using automated and manual feature engineering and creating predictive models.

- **Cloud Computing** – Utilizing the suite of Google Cloud Platform offerings for Data Science MLOps.

- **Statistics** (Bayesian and Frequentist – Statistical Modeling) – Using traditional non-deep statistical models for small data. For eg. A/B testing and change-point detection to measure if a business decision was effective.

Tools and Technologies   (skill ratings out of 10)

- **Business Intelligence and Visualization** : Tableau(7), Matplotlib(7), Seaborn(7), Plotley(7), Bokeh(7), Superset(2)

- **Data Engineering** : Cloud SQL(7), Spanner(5), BigTable(5), BiqQuery(9), Dataflow (Apache Beam)(7), PubSub(6), Cloud Functions(6), DataProc (Hadoop/Spark)(5), DataPrep(7), Composer (Apache Airflow)(6), Firestore(5), Data Fusion(8), Docker(7), Kubernetes(7), Regex(7)

- **Machine Learning** : H2O.ai(9), AutoML(9), Driverless AI(7), Scikit-Learn(7), Tensorflow 2(6), Featuretools(6), Google VertexAI(7), Colab(9)

- **Cloud Computing** : Google Cloud Platform (GCP)(8)

- **Data Analytics** : KNIME Analytic(8), Pandas(8), Koalas(8), Dask(8), Numpy(8)

- **Statistics (Bayesian and Frequentist)** : PyMC3(7), scipy.stats(7), Statsmodels(7)

- **Languages** : Python(8), C#(7), LaTeX(5)

- **Operating System** : GNU/Linux(7), NixOS(4), BASH(5), Xonsh(8), Vagrant(7), Btrfs(7)

- **Web 3.0** : IPFS(5)

- **Cybersecurity** : GnuPG(8)

- **Tools**: Git/Gitflow(8), Visual Studio Code(7), Workbench/Jupyter(8), Streamlit(7), Anaconda(9)

Let's Solve

Would you like to learn more about:

- How you or your organization can benefit from the Data/AI Revolution?

- How to create Data Teams that deliver on time and budget?

- How to create Data projects delivery pipelines and systems that work with clockwork efficiency?

Manuj Chandra

Creator of Datalogy Framework 2.0 - A data success framework which has enabled more than 500+ professionals realize their Data vision

Personal:
www.DataSolvesEverything.com
Linkedin:
https://www.linkedin.com/in/manuj/
GitHub:
https://github.com/magnacore/
Youtube :
(Quant) https://bit.ly/Magnacore
(Hobby) https://bit.ly/FossWorld

ManujChandraWork@GMail.com

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