# **Personal Details**

Sanjay Sarma, distinguished leader in academia and business, is CEO, President, and Dean of the Asia School of Business. He is also a professor of Mechanical Engineering at MIT and has a courtesy appointment at the Sloan School of Management. He co-founded the Auto-ID Center at MIT, pioneering the technical concepts and standards of modern RFID. Today, the suite of standards developed by the Auto-ID Center, called EPC, has become a global standard utilized by over a thousand companies. Sarma also previously chaired the Auto-ID Research Council, establishing six labs worldwide. He co-founded OATSystems, later acquired by Checkpoint Systems, and serves on the boards of several companies including Aclara Resources (TSX:ARA) Rekor Systems (NASDAQ:REKR) and GS1.

Sarma received his PhD from the University of California at Berkeley, his Masters from Carnegie Mellon University and his Bachelors from the Indian Institute of Technology. His expertise includes RFID, sensors, manufacturing, autonomy, AI, sustainability and innovation. He has authored over 150 publications and played a key role in India’s Aadhaar unique ID system. Sarma’s contributions have been recognized with multiple awards, including the MIT MacVicar Fellowship and National Science Foundation CAREER Award. He has been honored by Business Week, Fast Company, and RFID Journal for his innovations.

In addition to his academic achievements, Sarma has been highly influential in education, helping establish Singapore University of Technology and Design, serving as the first Director of Digital Learning at MIT and as the Vice President for Open learning at MIT. His initiatives include MIT Open Learning, MicroMasters, the Jameel World Education Lab, the MIT Integrated Learning Initiative and MIT xPro. Sarma’s multifaceted career is a testament to his commitment to innovation, education, and technological advancement.

A recognized innovator in education and technology, Sarma also holds the Fred Fort Flowers (1941) and Daniel Fort Flowers (1941) Professorship in Mechanical Engineering at the Massachusetts Institute of Technology (MIT).[1] As MIT's first Vice President for Open Learning (2012-2021), he spearheaded transformative digital initiatives, including edX, MicroMasters, and OpenCourseWare, which have expanded access to world-class education on a global scale.

Sarma's impact extends to the field of RFID technology,[2] where he co-founded the Auto-ID Center at MIT in 1999. The center's pioneering work established the technical standards that power modern supply chains, which are now used by thousands of companies worldwide. His work has shaped how industries operate, enabling greater efficiency and transparency on a global scale. In 2017, along with Linda Bernardi and

the late Kenneth Traub, Sarma co-authored The Inversion Factor: How to Thrive in the IOT Economy (MIT Press), offering insights into the evolving role of IoT in business.[3]

Beyond academia, Sarma has served as a board member for the MOOC provider edX and continues to influence the intersection of technology, education, and leadership.[4] At ASB, his vision integrates sustainability, innovation, and business acumen, equipping future leaders to address the complexities of a rapidly changing world.

**Early life**

Sanjay Sarma earned his Bachelor’s degree in mechanical engineering from the Indian Institute of Technology, Kanpur in 1989, before pursuing advanced studies at Carnegie Mellon University where he completed his Master's degree in 1992, specializing in operations research. He earned his PhD in mechanical engineering from the University of California, Berkeley in 1995, focusing on automation and systems optimization.[5] Between degrees, he worked at Schlumberger Oilfield Services in Aberdeen, UK, gaining practical experience in energy technologies.

**Personal life**

Sanjay Sarma is the son of Dr. E. A. S. Sarma, a former Secretary to the Government of India, known for his significant contributions to social causes and the energy sector.[6] He is married to Dr. Gitanjali Swamy, an accomplished entrepreneur and academic, and the daughter of Dr. Subramanian Swamy, a prominent Indian politician. The couple has one daughter.

**Career**

Sarma’s early career included roles at Schlumberger and Lawrence Berkeley Laboratories, where he gained expertise in energy systems and advanced research. In 1996, he joined MIT, beginning a career that would establish him as a leader in academia, entrepreneurship, and technological innovation.[7]

In 1998, Sarma, along with Dr. David Brock, began work on RFID research. Subsequently, in 1999, he co-founded the Auto-ID Center at MIT[8] alongside Prof. Sunny Siu and Dr. David Brock of MIT, and Kevin Ashton of P&G, with the objective of realizing the vision of standards-based RFID technology in commercial applications. The center was established as an industry-sponsored research project at MIT, aiming to develop a global open standard system for widespread RFID implementation. Initially serving as research director, Sanjay later assumed the role of chairman of research after Siu's departure.

Under Sarma's leadership, in collaboration with Kevin Ashton, [9] the Auto-ID Center attracted 103 industry sponsors and established six research labs at major universities worldwide.[10] The center’s efforts culminated in the creation of the Electronic Product Code (EPC) system, a suite of standards that revolutionized supply chain management and became a foundation for the Internet of Things (IoT). These innovations were transitioned to the nonprofit standards organization GS1, leading to the formation of EPCglobal, a "spin-off" organization created to oversee and further develop RFID standards. Sarma continues to serve as chairman of EPCglobal, which remains the global standards body for RFID technologies.

The Auto-ID Center was later rebranded as Auto-ID Labs, continuing its research into RFID and IoT technologies. Today, the standards developed under Sarma's guidance are utilized by thousands of companies across five continents, underscoring the lasting impact of his work in shaping modern supply chain systems.

Between 2004 and 2006, Sarma took a leave of absence from MIT to found OATSystems, a software company specializing in RFID solutions, which was acquired by Checkpoint Systems (NYSE: CKP) in 2008. He has since served as a consultant and board member for various companies, including Rekor Systems (NASDAQ: REKR), and innovative startups such as Cleanlab (AI), Alsym (battery technology), IFM Investors, and Jimco. Sarma also contributed to the IPO of Aclara Resources (TSE: ARA) and served on the board of Hochschild Mining (LON: HOC). He remains actively involved as a permanent guest of the board of GS1 and a member of the board of governors of GS1 US.

Sarma’s research portfolio spans RFID, IoT, AI, energy systems, and sustainability, with practical applications in batteries, transportation, and smart systems. He has authored over 150 academic publications in areas such as computational geometry, manufacturing, CAD, signal processing, and security. He also played a key role in the development of India’s Aadhaar unique ID system, which underpins the country’s digital infrastructure.

Between 2010 and 2012, Sarma helped establish the Singapore University of Technology and Design (SUTD), a collaboration with MIT and the Singapore government. In 2012, he became MIT’s inaugural Director of Digital Learning and, later, Vice President for Open Learning. In this role, he oversaw groundbreaking initiatives such as MIT OpenCourseWare, Massive Open Online Courses (MOOCs), the MicroMasters program, the MIT Integrated Learning Initiative, the Jameel World Education Lab, MIT xPro, and Horizon. He also served on the board of edX, a leading global MOOC provider.

Sarma’s contributions to education and technology have been widely recognized. His awards include the MIT MacVicar Fellowship, the National Science Foundation CAREER Award, the Den Hartog Award for Excellence in Teaching, the Keenan Award for Innovations in Undergraduate Education, the New England Business and Technology Award, and the MIT Global Indus Award. He has also been featured on Business Week’s ebiz 25 Innovators list, Fast Company Magazine’s Fast Fifty, and received the RFID Journal Special Achievement Award.

Since 2023, Sarma has been leading the Asia School of Business, where he integrates technology, sustainability, and innovation into business education to prepare leaders for the challenges of a rapidly changing world.

Educational Background

1. Bachelor's Degree

● Institution: Indian Institute of Technology (IIT), Kanpur

● Field of Study: Mechanical Engineering

● Year of Graduation: 1989

● IIT Kanpur is one of India’s premier engineering institutions, known for its rigorous academic standards and emphasis on research and innovation. Sarma's education here provided him with a solid grounding in engineering principles and problem-solving skills.

2. Master's Degree

● Institution: Carnegie Mellon University

● Field of Study: Mechanical Engineering (specializing in Operations Research) ● Year of Graduation: 1992

● Carnegie Mellon is renowned for its focus on technology and management, and Sarma’s studies here allowed him to delve deeper into the analytical aspects of engineering, particularly in optimizing systems and processes.

3. PhD

● Institution: University of California, Berkeley

● Field of Study: Mechanical Engineering

● Year of Graduation: 1995

● Sarma’s doctoral research focused on automation and systems optimization, areas critical to modern engineering challenges. His time at Berkeley, a leading research

university, further honed his skills in innovative technologies and advanced engineering practices.

Impact of Education on Career

Sanjay Sarma's educational experiences have significantly influenced his career trajectory:

● Research and Innovation: His advanced studies equipped him with the knowledge necessary to co-found the Auto-ID Center at MIT, where he developed key technologies behind RFID standards that are now widely used in supply chain management globally.

● Leadership in Education: As Vice President for Open Learning at MIT, Sarma leveraged his educational background to spearhead initiatives like MIT OpenCourseWare and edX, promoting accessible education through digital platforms.

● Contributions to Technology: His expertise in automation and systems optimization has been pivotal in various technological advancements, including the development of India’s Aadhaar unique ID system.

Recognition

Sanjay Sarma's academic achievements have been recognized through various awards, including:

● MIT MacVicar Fellowship: Awarded for excellence in teaching.

● National Science Foundation CAREER Award: Recognizing outstanding early-career faculty.

His educational background not only reflects his personal achievements but also underscores his role as an influential figure in shaping the future of education and technology. Through his leadership at the Asia School of Business and ongoing contributions to academia, Sarma continues to impact the fields of engineering, education, and innovation significantly. Share

Sanjay Sarma's career path is a remarkable journey that spans academia, innovation, and entrepreneurship. His extensive experience and contributions to education and technology have established him as a leading figure in these fields. Below is a detailed overview of his career trajectory:

Early Career:

1. Initial Professional Experience

● Schlumberger Oilfield Services: Sarma began his career at Schlumberger in Aberdeen, UK, where he worked in the oil and gas sector. This experience provided him with practical insights into engineering applications in industry.

● Lawrence Berkeley National Laboratory: He later worked at this prestigious laboratory in Berkeley, California, where he engaged in research that further developed his expertise in mechanical engineering and automation.

Academic Career

2. Massachusetts Institute of Technology (MIT)

● Joining MIT: Sarma joined the MIT faculty in 1996 as an assistant professor in the Department of Mechanical Engineering. His academic focus was on areas such as automation, systems optimization, and RFID technology.

● Promotion to Full Professor: He became a full professor in 2010, reflecting his contributions to research and teaching excellence.

3. Leadership Roles at MIT

● Co-Founder of the Auto-ID Center: In 1999, Sarma co-founded the Auto-ID Center at MIT, which pioneered the development of RFID (Radio Frequency Identification) technologies. The center played a crucial role in establishing the EPC (Electronic Product Code) standards that are now globally used across various industries for supply chain management.

● Vice President for Open Learning (2012-2021): Sarma served nearly a decade in this role, overseeing initiatives such as:

● MIT OpenCourseWare: A platform that provides free access to course materials from MIT.

● MITx: The university's online learning initiative that includes MOOCs (Massive Open Online Courses).

● MicroMasters Programs: These are graduate-level courses offered online that allow learners to earn credentials recognized by universities.

● Jameel World Education Lab: A consortium aimed at improving educational outcomes globally.

● MIT Integrated Learning Initiative: A research center focused on understanding how people learn.

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Sarma's leadership in these initiatives has significantly expanded access to education and transformed how learning is delivered.

Entrepreneurial Ventures

4. OATSystems

● Co-Founder and CTO: Sarma co-founded OATSystems, a company specializing in RFID technology solutions. The company was acquired by Checkpoint Systems in 2008, highlighting Sarma's role in bridging academic research with commercial applications.

Contributions to Standards and Policy

5. Standards Development

● Sarma chaired the Auto-ID Research Council and played a key role in establishing six labs worldwide focused on RFID research and application.

● He has been involved with various standards bodies and served as an advisor for significant projects, including India's Aadhaar unique identification system, which utilizes biometric data for identity verification.

Board Memberships and Advisory Roles

6. Board Positions

● Sarma serves on the boards of several organizations including:

● GS1US: An organization that develops global standards for business communication.

● Hochschild Mining: A mining company focused on precious metals. ● Various startups including Top Flight Technologies.

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These positions reflect his influence across multiple sectors, from technology to resource management.

Recent Developments

7. Asia School of Business

● In June 2023, Sarma was appointed as the CEO, President, and Dean of the Asia School of Business (ASB) in Kuala Lumpur, Malaysia. His vision for ASB involves integrating advanced technologies into business education and fostering innovative learning environments that prepare students for future challenges.

8. Publications and Thought Leadership

● Sarma has authored over 150 academic publications covering topics such as computational geometry, sensing technologies, RFID applications, automation, and educational innovation.

● He has also published books including *Grasp: The Science Transforming How We Learn* and *Workforce Education: A New Roadmap*, contributing to scholarly discourse on learning methodologies and workforce development.

Recognition

Sanjay Sarma's career has been marked by numerous accolades:

● He received the MIT MacVicar Fellowship for excellence in teaching. ● He was honored with the National Science Foundation CAREER Award, recognizing his contributions to research and education.

● Featured by publications like *Business Week* and *Fast Company* for his innovations in technology and education.

Sanjay Sarma has received numerous awards and recognitions throughout his distinguished career, reflecting his significant contributions to academia, technology, and education. Below is a comprehensive overview of his awards and recognitions:

Major Awards and Honors

1. MIT MacVicar Fellowship

● Description: This prestigious fellowship is awarded to faculty members at MIT who demonstrate excellence in undergraduate education. It recognizes outstanding teaching and mentorship.

● Significance: The fellowship highlights Sarma's commitment to high-quality education and his impact on students at MIT.

2. National Science Foundation CAREER Award

● Description: This award supports early-career faculty who have the potential to serve as role models in research and education.

● Significance: It underscores Sarma's innovative research contributions and his dedication to integrating education with cutting-edge scientific inquiry.

3. Cecil and Ida Green Career Development Chair

● Description: This chair is awarded to faculty members at MIT who show exceptional promise in their fields.

● Significance: It reflects Sarma's recognized leadership and influence within the academic community.

4. Den Hartog Award for Excellence in Teaching

● Description: This award honors faculty members who have demonstrated exceptional teaching abilities.

● Significance: It acknowledges Sarma's effectiveness as an educator and his positive impact on student learning experiences.

5. Keenan Award for Innovations in Undergraduate Education

● Description: This award recognizes innovative approaches to undergraduate teaching.

● Significance: It highlights Sarma's contributions to enhancing educational practices at MIT.

6. New England Business and Technology Award

● Description: This award recognizes individuals who have made significant contributions to the fields of business and technology in New England. ● Significance: It showcases Sarma's influence beyond academia into the broader business community.

7. MIT Global Indus Award

● Description: This award honors individuals who have made significant contributions to the global community through their work.

● Significance: It reflects Sarma's international impact, particularly through initiatives like the Aadhaar system in India.

8. Business Week eBiz 25 (2003)

● Description: Recognizes influential figures in the business world who have made significant contributions to digital innovation.

● Significance: Sarma’s inclusion on this list emphasizes his role as a leader in technological advancements.

9. Fast Company Magazine’s Fast Fifty (2003)

● Description: This recognition highlights innovative thinkers and leaders across various industries.

● Significance: It underscores Sarma’s influence in driving innovation within technology and education sectors.

10. RFID Journal Special Achievement Award (2010)

● Description: This award recognizes individuals who have made outstanding contributions to the RFID industry.

● Significance: Sarma received this award for his pivotal role in developing RFID standards through the Auto-ID Center at MIT, which has transformed supply chain management globally.

Publications and Contributions

In addition to these awards, Sanjay Sarma has authored over 150 academic publications covering a wide range of topics including:

● RFID technology

● Automation

● Computational geometry

● Manufacturing

● Energy systems

His research has not only contributed to academic knowledge but has also had practical implications in industries such as logistics, healthcare, and manufacturing.

Influence on Education

Sarma has played a crucial role in shaping educational initiatives at MIT, including:

● Establishing MIT OpenCourseWare

● Leading the development of MicroMasters programs

● Serving as Vice President for Open Learning, where he promoted digital learning innovations that reach millions globally.

These initiatives have garnered international recognition, further solidifying his status as a leader in educational innovation.

Research Interests

1. Radio Frequency Identification (RFID)

● Overview: Sarma is a pioneer in RFID technology, having co-founded the Auto-ID Center at MIT, which developed the Electronic Product Code (EPC) system. ● Applications: His work in RFID has transformed supply chain management by establishing standards that enhance efficiency and transparency. The technologies developed under his guidance are used globally by thousands of companies.

2. Internet of Things (IoT)

● Overview: Sarma's research in IoT focuses on how interconnected devices can improve operational efficiencies across various sectors.

● Impact: He has been instrumental in integrating IoT with RFID technologies, paving the way for smarter supply chains and enhanced data collection methods.

3. Artificial Intelligence (AI)

● Overview: Sarma explores the implications of AI in various applications, particularly in education and manufacturing.

● Educational Innovation: His interest in AI includes its potential to transform learning methodologies, as seen in his initiatives at MIT for digital learning.

4. Sustainability

● Overview: Sarma emphasizes sustainable practices within technology development, particularly in energy systems.

● Research Focus: His work includes exploring sustainable energy solutions and innovative technologies that minimize environmental impact.

5. Manufacturing and Automation

● Overview: Sarma's background in mechanical engineering informs his research in advanced manufacturing techniques and automation processes.

● Technological Integration: He investigates how emerging technologies can be integrated into traditional manufacturing systems to enhance productivity and efficiency.

6. Education Technology

● Overview: As the former Vice President for Open Learning at MIT, Sarma has a strong interest in educational technologies that expand access to learning. ● Initiatives: He has led projects such as MIT OpenCourseWare and the MicroMasters program, which leverage technology to provide high-quality education to a global audience.

7. Cybersecurity

● Overview: Sarma's research also touches on cybersecurity, particularly as it relates to IoT devices and systems.

● Importance: With the increasing interconnectivity of devices, ensuring security within these networks is crucial for protecting sensitive data.

8. Logistics

● Overview: His work in logistics focuses on optimizing supply chain operations through advanced technologies like RFID and IoT.

● Practical Applications: Sarma's research aims to improve logistics efficiency, reduce costs, and enhance service delivery across industries.

Key Publications

Academic Papers

1. Dynamic Graph CNN for Learning on Point Clouds

● Co-authored with Y. Wang et al., published in *ACM Transactions on Graphics* (2019).

● Cited by: 6,735

2. Security and Privacy Aspects of Low-Cost Radio Frequency Identification Systems

● Co-authored with S.A. Weis et al., presented at the First International Conference on Security in Pervasive Computing (2004).

● Cited by: 2,361

3. RFID Systems and Security and Privacy Implications

● Co-authored with S.A. Weis et al., presented at the International Workshop on Cryptographic Hardware and Embedded Systems (2002).

● Cited by: 1,237

4. Auto ID Systems and Intelligent Manufacturing Control

● Co-authored with D. McFarlane et al., published in *Engineering Applications of Artificial Intelligence* (2003).

● Cited by: 635

5. A Survey of the Connected Vehicle Landscape—Architectures, Enabling Technologies, Applications, and Development Areas

● Co-authored with J.E. Siegel et al., published in *IEEE Transactions on Intelligent Transportation Systems* (2017).

● Cited by: 471

6. Radio-Frequency Identification: Security Risks and Challenges ● Published in *RSA Laboratories Cryptobytes* (2003).

● Cited by: 410

7. The Networked Physical World: Proposal for Engineering the Next Generation of Computing, Commerce, and Automatic-Identification

● Co-authored with D.L. Brock et al., MIT Auto-ID Center White Paper (2000). ● Cited by: 221

8. Low-Cost, Ubiquitous RFID-Tag-Antenna-Based Sensing

● Co-authored with R. Bhattacharyya et al., published in *Proceedings of the IEEE* (2010).

● Cited by: 198

9. PointGrow: Autoregressively Learned Point Cloud Generation with Self-Attention ● Co-authored with Y. Sun et al., presented at the IEEE/CVF Winter Conference on Applications of Computer Vision (2020).

● Cited by: 225

10.Managing RFID Data

● Co-authored with S.S. Chawathe et al., presented at the Thirtieth International Conference on Very Large Data Bases (2004).

● Cited by: 312

Books

1. Grasp: The Science Transforming How We Learn

● Co-authored with Luke Yoquinto.

2. The Inversion Factor: How to Survive in the IoT Economy

● Co-authored with Linda Bernardi and Ken Traub.

3. RFID Technology and Applications

● Co-authored with Stephen B. Miles.

4. Learning Engineering for Online Education: Theoretical Contexts and Design-Based Examples

● Contribution to this edited volume focusing on educational

methodologies.

5. Education: Online On-Ramps

● Published in *Nature* (2013), discussing innovations in online education.

Notable Contributions to Conferences and Journals

Sanjay Sarma has also contributed to numerous conferences and journals related to engineering, technology, and education, including:

● IEEE International Conference on Communications

● Proceedings of the IEEE

● American Society for Engineering Education publications

● Various workshops focusing on IoT, RFID applications, and educational technologies.

Sanjay Sarma holds a pivotal role as the CEO, President, and Dean of the Asia School of Business (ASB) in Kuala Lumpur, Malaysia. His leadership is characterized by a commitment to innovative education and the integration of advanced technologies into business curricula. Below is a comprehensive overview of his role at ASB, including his initiatives, educational philosophy, and contributions to the institution.

Appointment and Background

● Position: Appointed as CEO, President, and Dean of ASB effective May 30, 2023. ● Previous Roles: Prior to joining ASB, Sarma served as the Vice President for Open Learning at the Massachusetts Institute of Technology (MIT), where he was

instrumental in leading transformative digital initiatives such as MIT OpenCourseWare and edX.

Vision for ASB

Educational Innovation

Sarma aims to position ASB as a leader in business education by:

● Redesigning the MBA Program: He has restructured the one-year Master of Business Administration (MBA) program to balance theory with practical application. This program combines pedagogical approaches from MIT Sloan School of Management with insights from Bank Negara Malaysia, creating a comprehensive educational experience that prepares students for real-world challenges34.

● Executive MBA Program: Sarma introduced an Executive MBA program that mirrors MIT’s MicroMasters initiative, allowing working professionals to pursue advanced education remotely. This program has gained traction internationally, being adopted by over 25 universities worldwide3.

Curriculum Development

Sarma emphasizes integrating cutting-edge topics into the curriculum:

● Focus Areas: Core modules include Internet of Things (IoT), artificial intelligence (AI), biotechnology, and blockchain. This ensures that students are equipped with knowledge relevant to current and future business landscapes46.

● Action Learning Projects: A hallmark of Sarma's educational approach is the emphasis on experiential learning. Students engage in real-world projects that allow them to apply theoretical knowledge in practical settings, mirroring successful practices from MIT6.

Leadership Philosophy

Sarma's leadership is driven by several key principles:

● Adaptability: He recognizes the rapid evolution of technology and its impact on education. Sarma advocates for a curriculum that can quickly adapt to changes in industry demands and technological advancements46.

● Student-Centric Approach: He believes in tailoring educational experiences to meet the needs of modern learners. This includes offering flexible learning options that accommodate diverse schedules and learning styles3.

● Collaboration with Industry: Sarma fosters partnerships with industry leaders to ensure that ASB’s programs remain relevant and impactful. His background in entrepreneurship and technology positions him well to bridge academic knowledge with practical applications57.

Research Interests

In addition to his administrative responsibilities, Sarma continues to pursue research in several areas:

● Internet of Things (IoT): He explores how IoT technologies can be leveraged for business innovation.

● Cybersecurity: Understanding security implications related to emerging technologies is a focus area.

● Logistics and Manufacturing: His research also delves into optimizing supply chains through technological advancements.

Impact on ASB

Sanjay Sarma’s leadership at ASB aims to establish the school as a premier institution for business education in Asia. His initiatives are designed not only to enhance academic offerings but also to prepare students for leadership roles in an increasingly complex global environment. By integrating technology into education and emphasizing practical experience, he seeks to cultivate principled and transformative leaders who can navigate future challenges effectively.

Family:

Based on the information provided in the search results, here are the key details about Sanjay Sarma's family:

1. Parents:

- Father: Dr. E.A.S. Sarma, who served as Secretary of the Government of India. He is noted for his work in various social causes and contributions to the energy sector. - Mother: While not named, she is mentioned as being intellectual. Sarma describes his parents as "two very intellectual parents."

2. Spouse:

- Wife: Dr. Gitanjali Swamy, who is the daughter of Dr. Subramanian Swamy, a notable Indian politician.

3. Children:

- Sarma and his wife have one daughter (not named in the provided information).

4. Extended Family:

- Sarma mentions having cousins and uncles who were engineers, indicating a family background in science and engineering.

- He talks about spending time with his grandparents and cousins during summer vacations, particularly mentioning activities near the sea and building model ships.

5. Childhood:

- Sarma was an only child.

- His family moved frequently (10-15 times) during his childhood due to his father's work as a bureaucrat.

6. Family Background:

- There's a strong lineage of scientists and engineers in his family. Sarma mentions that his great-grandfather was an engineer and his father was a nuclear physicist.

This information paints a picture of Sarma coming from a highly educated, intellectually-oriented family with a strong background in science, engineering, and public service.

Based on the interview excerpts, several aspects of Sanjay Sarma's early education in India appear to have shaped his career path:

1. Competitive academic environment: Sarma mentions the challenge of getting into IIT (Indian Institute of Technology), saying "Getting into IIT is not easy." This competitive environment likely fostered his academic drive from an early age.

2. Limited career options: He recalls his mother telling him and his cousin that they needed to try to get into IIT because "there weren't that many options" in India at the time. This pressure to succeed academically may have influenced his career choices.

3. Balance of study and play: Sarma notes that while he studied hard, he also had time for activities like cycling, badminton, and tennis. He says, "The Indian system, at that time, was still pretty free." This balance may have contributed to his well-rounded approach to education and innovation later in life.

4. Focus on engineering: Sarma states, "I just wanted to become an engineer." His early education in India seems to have steered him towards engineering as a career path.

5. Exposure to rote learning: While not directly stated, Sarma contrasts the Indian education system with the American system, appreciating the latter's focus on analytical thinking over memorization. This experience likely influenced his later views on education and his work in digital learning.

6. Foundation in mechanical engineering: Sarma received his B.Tech in Mechanical Engineering from IIT Kanpur, which laid the groundwork for his future academic and research career.

7. Curiosity and passion for learning: Although not explicitly linked to his Indian education, Sarma's childhood in India is described as shaping "his curiosity and passion for learning," which has been a driving force in his career.

Based on the interview excerpts, several factors inspired Sanjay Sarma to pursue a career in academia and innovation:

1. Gradual discovery of passion: Sarma didn't initially plan an academic career. He says "I never thought I'd enjoy teaching" and that he "wanted to go do stuff, make stuff." It was only after he started teaching that he realized he enjoyed it.

2. Enjoyment of research: Sarma mentions that he "enjoyed the research a lot" during his graduate studies. This positive experience with academic research likely influenced his career path.

3. Appreciation for the academic environment: He enjoyed the multidisciplinary nature of college, stating: "I enjoyed the fact that, in a college, you can hear people on the one hand discuss Shakespeare, and on the other hand, discuss engineering, or disagree on politics, or talk about international relations."

4. Evolving educational experiences: His transition from studying in India to graduate school in the US exposed him to different teaching approaches. He appreciated the American education system's focus on analytical thinking over rote memorization.

5. Interest in robotics and design: While not having a "grand plan," Sarma pursued graduate studies due to his interests in robotics and design, which aligned well with an academic career.

6. Practical considerations: A knee injury made him reconsider his initial plans to work on oil rigs, potentially steering him towards academia.

7. Gradual realization: Sarma emphasizes that his career path wasn't planned, saying "I'm obviously not very introspective." His move into academia and innovation seems to have been a gradual process of discovery rather than a predetermined goal.

Overall, Sarma's path to academia and innovation appears to have been shaped by a combination of his positive experiences in research and teaching, his appreciation for the academic environment, and his evolving interests and circumstances, rather than a deliberate plan from the outset.

While Sarma's early education in India provided a strong academic foundation and drive, it's worth noting that he emphasizes he didn't have a "grand plan" for his career. His path seems to have evolved through a combination of his educational background,

circumstances, and growing interests rather than a predetermined trajectory set by his early education alone.