OMKAR DESHMUKH

SOFTWARE ENGINEER · RESEARCHER · INNOVATOR · DEVELOPER & EVENT ORGANIZER

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7	4	Rs 17 Cr	Rs 30.45 L	8+	36+
PATENTS FILED	GRANTED · IN + US	IP VALUATION	RESEARCH FUNDING	PUBLICATIONS	CERTIFICATIONS

PROFILE

Research-oriented Computer Science & Engineering student building at the intersection of artificial intelligence, biomedical engineering, and healthcare innovation. Work spans patented 3D bioprinting systems, AI radiology platforms, robotics, and public-policy-aware healthcare R&D — across the full innovation pipeline of research, prototyping, intellectual property, and technology commercialization. President of BioBridge (cross-domain biomedical engineering club), TEDxSNPSU organizer & licensee, and Team Leader of Team Vidyut for ISRO STRC 2026.

EDUCATION

B.E. Computer Science & Engineering, Sapthagiri NPS University, Bengaluru — 2024 – 2028 (expected).

Young Fellowship — FIERD Program, National University of Singapore (NUS) — selected from 2,68,483 applicants.

Class XII — Maharashtra State Board — Higher Secondary Education, Maharashtra.

Class X — CBSE — Secondary Education, Maharashtra.

PATENTS & INTELLECTUAL PROPERTY — 7 FILED · 4 GRANTED · 1 PUBLISHED · 1 COPYRIGHT

Integrated 3-D Bioprinting Device for Dermatological Treatment — flagship innovation with **4 granted patents (2 India, 2 United States)**; AI-integrated device for skin regeneration therapy combining hardware, CNN-driven imaging, and automated clinical workflows. Patent design valuation assessed at approximately **Rs 17 Crore** via WIPO-based international IP valuation resources.

CNN Model for Facial Augmentation — Indian patent filed and published — CNN model for facial augmentation, recognition, and treatment-oriented clinical analysis.

AI-Powered Diagnostic Model for Radiology — copyright granted — AI diagnostic model for radiological assessment and early disease detection.

IP practice — hands-on patent drafting, technology validation and evaluation, and commercialization-oriented IP assessment.

RESEARCH & PUBLICATIONS

Q2 research paper — CNN Technologies for 3-D Bioprinting.

Q3 research paper — Integrating AI Models on Technological Benchmarks.

National conference — IISc, Bengaluru — Methods to Train U-Net, RNN and CNN Models.

International conference — Delhi University — Mathematical Representation of CNN Formulae.

Book chapter — Elsevier / Scopus — Artificial Intelligence in Logistics and Supply Chain Management.

Book chapter — Elsevier / Scopus — AI in Predictive Modelling and Diagnostic Systems.

Book chapter — Springer (submitted) — Integrating AI for Big Data Models.

Book chapter (submitted) — AI Technologies for Dermatology.

SELECTED PROJECTS

Automated 3D Bioprinter for Dermatology (Vitiligo) — patented AI-integrated system using CNN/U-Net for skin regeneration, workflow automation, and clinical decision support.

AI Radiological Assessment Platform — copyright-protected AI healthcare platform for early disease detection and diagnostic assistance.

Machine Learning for Space Applications — predictive ML models for space applications as Team Leader of Team Vidyut, ISRO STRC 2026.

AI-Based Facial Recognition & Augmentation System — patent-published CNN models for facial recognition and treatment-oriented diagnostics.

3D Bioprinting Web Application — AI-assisted web app for print-path planning, imaging, and parameter configuration.

BioBridge Club Website — React platform supporting healthcare R&D initiatives on campus.

National-Level Drone Prototype — shortlisted in national-level competitions.

LEADERSHIP & EXPERIENCE

Organizer & Licensee — TEDxSNPSU (Jul 2025 – Present) — obtained the TED license; organized TEDx events (Dec 2025, May 2026) plus two awareness pre-events; managed speakers, sponsorships, and execution; digital campaigns reached **~15.8 lakh impressions in 30 days**.

President — BioBridge, Biomedical Engineering Club — founded and lead a cross-domain club uniting medicine, engineering, and applied sciences to promote healthcare R&D.

Established Apple Development Center at SNPSU — among the earliest universities in India to host one; championed industry–academia collaboration and startup culture.

Team Leader — ISRO STRC 2026, Team Vidyut (Oct 2024 – 2026) — lead ML development, planning, and technical milestones in the national-level ISRO challenge.

Robotics Director — Build Club, R&I Cell SNPSU (Oct 2024 – Present) — organized the Robotics Challenge, Future Innovator Challenge, BIS Awareness Camp, Research Methodology Workshop, and a cross-disciplinary engineering × medical poster presentation.

SCSCD — team lead for district-level science and football competitions; first prize in event hosting at the Annual Day.

GRANTS, FUNDING & FELLOWSHIPS

Rs 18,00,000 — Ministry of State Health & Family Welfare — healthcare innovation and biomedical research, incl. Government of Maharashtra support for the 3-D Bioprinting for Dermatological Treatment project.

Rs 12,45,000 — Ministry of Corporate Affairs — prototype development, research, publications, and project operations.

Funding proposals presented — Rajiv Gandhi Science & Technology Commission (Nagpur); ICMR (2nd proposal presentation); Ministry of State Health & Family Welfare; Ministry of Corporate Affairs.

NUS Fellowship — selected 1 out of 2,68,483 students — fellowship and innovation programmes at the National University of Singapore, including the FIERD Program; ongoing national and international research collaborations.

AWARDS & RECOGNITIONS

Dr. A.P.J. Abdul Kalam National Star Award (Research Excellence) · Young Researcher Award 2026 (Global Achievers of India) · National Excellence Award, Youth R&D · Junior Scientist honor (Worldwide Foundation) · Student Excellence Award 2026–27, SNPSU · Outstanding Achievement in AI (NUS Data Science Conference) · Tracker of the Year (National-Level TCS Hackathon, Pune) · Best Use of AI (Presidency University, Bengaluru) · 1st Prize, Event Hosting & Science Competition (SCSCD) · 1st Prize, District-Level Football & Debate · 3rd Prize, District-Level Science Competition.

CERTIFICATIONS & COURSES — 36+

Microsoft (15) — Azure AI Fundamentals, AI Builder, Computer Vision, NLP, Azure OpenAI, Generative AI, Prompt Engineering, AI Agents, AI Applications, SQL, Power BI, Azure Data Fundamentals, Azure Fundamentals, Azure Administrator, Azure Developer.

IBM (9) — AI Fundamentals, AI Analyst, Generative AI, AI Ethics, AI Agents, Responsible AI, Machine Learning Basics, Deep Learning, Neural Networks.

Infosys Springboard (7+) — Python Data Analyst, Python Automation, Enterprise Automation with Python, Database Management Systems, Network Security Systems, Cyber Security & Cyber Law Ethics, Soft Skills Learning.

Cisco Networking Academy (5) — Networking Basics, Introduction to Networks, Network Support, Packet Tracer, Introduction to Cybersecurity.

Additional — 13 completed Python courses; ongoing AI/ML and innovation training programmes.

TECHNICAL SKILLS

AI / ML — Deep Learning, CNN / U-Net, Medical Image Analytics, Computer Vision, Predictive Modelling, LLMs, Prompt Engineering.

Programming — Python, JavaScript, C, C#, HTML.

Backend & Data — Node.js, REST APIs, MongoDB, SQL, Data Modelling, NumPy, Pandas.

Tools & Practice — Git/GitHub, React, Research Methodology, Innovation Management, Technology Commercialization, Technical Documentation.

LANGUAGES

Marathi (Mother Tongue) · English, Hindi, Sanskrit — Proficient · Kannada, Gujarati — Intermediate.

AREAS OF INTEREST

Artificial Intelligence · Healthcare Innovation · Digital Health · Public Policy · Data Analytics · Robotics · Biomedical Engineering · R&D · Innovation Management.