



# Miranda House

## UNIVERSITY OF DELHI

**Name:** Priti Rai Jain

**Department:** Computer Science

**Current Designation:** Assistant Professor

**Email id:** [prতিরai.jain@mirandahouse.ac.in](mailto:prতিরai.jain@mirandahouse.ac.in), [prতিরai.jain@gmail.com](mailto:prতিরai.jain@gmail.com)

**Website URL:** <https://sites.google.com/view/priti-rai-jain>

**ORCID ID:** 0000-0002-7871-931X

**Vidwan-ID:** 220725

### **Academic Qualifications:**

- Master of Computer Applications (MCA)
- PG Honors Diploma in Systems Management
- BSc General with Computer Science

### **Research Degree(s):**

- Pursuing PhD from Jamia Millia Islamia
- M Phil in Computer Science

### **Field of Specialization under the Subject/Discipline:**

Data Analytics, Machine Learning, Deep Learning

## **ABOUT ME**

The bouquet of subjects that I teach include Programming using Python, C++, Java; Data Analysis using Python, Data Structures, Design and Analysis of Algorithms, DBMS using Oracle/ MySQL, Computer Fundamentals, Office Automation Tools, Internet Technologies- HTML, PHP, JavaScript, JSP; Software Engineering, Computer System Architecture, Digital Electronics, System Software, Unix, Theory of Computation.

My primary responsibilities include delivering lectures to under graduate students on a variety of subjects in Computer Science, assessment, evaluation, mentoring students and curriculum design. As a part of my responsibility, I ensure design & development of course curriculum while adhering to quality standards and regulations of the university. I provide academic leadership in classroom by recognizing, respecting and nurturing the creative potential of individual students and ensuring an effective and compelling learning environment.

In various colleges where I have worked, I have been involved in all sorts of college committees such as Time Table, Annual Cultural Festival, Departmental Technical Festival, Annual Principal's Report, Work Load, Library, NIRF, NAAC, Admissions, IT infrastructure and Connectivity, Gardening to name a few. My role involves collaborating with fellow teachers to conduct - quality research in order to enhance the learning experience and student interest. I am also involved in conducting research to develop reliable methods for evaluation of student's performance, to adopt effective strategies that meet their interests and needs. I spearhead Student Centre Activities which include specialized - events, in-house seminars, - workshops etc. I possess a keen interest in aligning individual student's interests with potential career opportunities to guide them - effectively vis-a-vis future fields of study or fellowship opportunities. Some of the multifaceted activities that I have carried out over these years are as under:

- Part of authoring team for class 11th and 12th Computer Science and Information Practices text books at NCERT.
- Resource person at FDPs and Training Programs for students
- Faculty advisor/ organizer for co-curricular activities - technical festivals, cultural festivals,
- Conducted faculty development programs (train the trainer programs).
- workshops and seminars.
- Conducted student surveys, collected & collated data and report preparation, data presentation for institution accreditation bodies and forums like NAAC, NIRF etc.
- Developed e-content for ILL DU.
- Reviewed textbooks for Oxford University Press and Bharti Bhawan.
- Developed a series of five art and craft books for Future Kids Publications Pvt. Ltd.

- I have professional certifications from DELL EMC and Microsoft.
- Coordinator for Add on course on Data Science and Analytics (using R language) at Miranda House, University of Delhi.

## PROFESSIONAL EXPERIENCE DETAILS

- i. About **ten years of experience in software industry** – software requirements gathering, analysis, designing, programming, testing and implementation (of both traditional and object-oriented applications), user training and software quality assurance.
- a) **Sr. Engineer S/W Integration CMC Ltd., New Delhi** Aug 1995 - Dec 2003  
Worked on prestigious projects such as- automation of Delhi Development Authority, automation of operations of Central Bureau of Investigation etc.
- S/W Platform : Developer 2000 and Visual Basic 6.0, Oracle 8i (Forms, Reports), Visual C++ 4.2, Power Builder 5.0, Oracle 7.3, Crystal Reports
- Case Tool : Rational Rose / C++ 2.7
- b) **Systems Associate (Faculty) NIIT Ltd., New Delhi** Mar 1995 - Jul 1995
- c) **MIS Executive CONCOR Ltd., New Delhi** Nov 1993 - Feb 1995
- d) **Scientific Assistant Miranda House, DU** Jul 1992 - Nov 1992
- ii. More than **21 years of experience as Assistant Professor** in colleges of University of Delhi - taught students of BSc(H)/ BTech Computer Science, BSc Program courses.
1. Assistant Professor (Perm) Dept of Computer Science, 23 Sep 2023 till Date  
Miranda House, University of Delhi.
  2. Assistant Professor (Ad hoc) Dept of Computer Science, 24 Jul 2013 – 23 Sep 2023  
Miranda House, University of Delhi.
  3. Assistant Professor (Ad hoc) Dept of Computer Science, Jul 2012 to Jul 2013  
SPM College, University of Delhi.
  4. Assistant Professor (Ad hoc) Dept of Computer Science, Dec 2003 to Dec 2011  
Keshav Mahavidyalaya, University of Delhi.

**Subjects I teach include:** Programming using Python, C++, Java; Data Analysis using Python, Data Structures, Design and Analysis of Algorithms, DBMS using Oracle/ MySQL, Computer Fundamentals, Office Automation Tools, Internet Technologies- HTML, PHP, JavaScript, JSP; Software Engineering, Computer System Architecture, Digital Electronics, System Software, Unix, Theory of Computation.

## RESEARCH PUBLICATIONS

1. **DeLTran15: A Deep Lightweight Transformer-based Framework for Multiclass Classification of Disaster posts on X**  
Publisher: IEEE  
Published in: IEEE Access (Volume: 12) Page(s): 153676 - 153693  
Electronic ISSN: 2169-3536 Date of Publication: 11 October 2024  
DOI: [10.1109/ACCESS.2024.3478790](https://doi.org/10.1109/ACCESS.2024.3478790)
2. **Evaluating Online Education in India: Insights from Teachers**  
Journal of Computational Analysis and Applications (JoCAAA)  
Volume 33 Issue 07  
Pages 374-382 Publication date 24 Sept 2024  
1521-1398 (Paper), 1572-9206 (Online)
3. **EM-UDA: Emotion Detection using Unsupervised Domain Adaptation for Classification of Facial Images**  
Publisher: IEEE  
Published in: IEEE Access (Volume: 12) Page(s): 140262 - 140276  
Electronic ISSN: 2169-3536 Date of Publication: 25 September 2024  
DOI: [10.1109/ACCESS.2024.3467990](https://doi.org/10.1109/ACCESS.2024.3467990)
4. **PM-ViT- A Framework for Recognition of Emotions and Proclivity Towards Mental Illness using Facial Expressions** ( Accepted Paper in Journal of Computer Science, Science Publications)

5. **Analyzing Mental States, Perceptions and Experiences of Teachers and Students: An Indian Case Study on Online Teaching-Learning** - organised by RV Institute of Technology and Management, Bengaluru, India, (September 28-29, 2021). Published in Suma V., Fernando X., Du KL., Wang H. (eds) International Conference on Evolutionary Computing and Mobile Sustainable Networks (ICECMSN-2021). Lecture Notes on Data Engineering and Communications Technologies, vol 116  
 Publisher: Springer, Singapore                      Print ISBN:978-981-16-9604-6      Pages: 611-650  
 Online ISBN: 978-981-16-9605-3  
 DOI: [https://doi.org/10.1007/978-981-16-9605-3\\_41](https://doi.org/10.1007/978-981-16-9605-3_41)                      First Online: 22 March 2022
  
6. **Recent Trends in Artificial Intelligence for Emotion Detection using Facial Image Analysis** – 13th International Conference on Contemporary Computing (IC3 -2021), jointly organised by Jaypee Institute of Information Technology, India and University of Florida, USA, Noida, India, (August 05–07, 2021)  
 Publisher : Association for Computing Machinery, New York, NY, United States  
 ACM ISBN: 978-1-4503-8920-4/21/08 , Pages 18-36  
 DOI: <https://doi.org/10.1145/3474124.3474205>                      First Online: 05-08-2021
  
7. **Dataset: Covid-19 Go Away 2021 (C-19GA21)**  
 Jain, Priti Rai; Quadri, SMK; Rose, Elaine Mary (2021), “Covid-19 Go Away 2021 (C-19GA21)”, Mendeley Data                      DOI: <https://doi.org/10.17632/99hx2xg7gx.2>                      First Online: 31-07-2021  
*Description:* Contains data from two online surveys conducted in April 2021, that were responded to by 709 students and 420 teachers across various states of India from a variety of institutes and belonging to various age groups who had been learning-teaching online for over a year during Covid-19. After removing records of individuals who did not wish to participate, 51 attributes from each of the 572 students and 64 attributes from each of the 390 teachers were obtained and anonymized to obtain the novel dataset “Covid-19 Go Away 2021” abbreviated as “C-19GA21”. C-19GA21 responses depict changes in emotional, behavioral, social, and cognitive aspects, attitudes towards Covid-19, and mental health measurements of its participants.
  
8. **Dataset: Covid-19 Go Away 2020 (C-19GA20)**  
 Jain, Priti Rai; Khattar, Anuradha; Quadri, S.M.K. (2021), “Covid-19 Go Away 2020 (C-19GA20)”, Mendeley Data.                      DOI: <https://doi.org/10.17632/ncvfr2trwb.2>                      First Online: 15-07-2021  
*Description:* The C-19GA20 dataset was gathered online in April 2020 from school and university students between 14 to 24 years of age. It provides insightful information about the students’ mental health, social lives, attitude towards Covid-19, impact of the Covid-19 Pandemic on students’ education, and their experience with online learning.
  
9. **Emerging Role of Intelligent Techniques for Effective Detection and Prediction of Mental Disorders**, International Conference on Sentimental Analysis And Deep Learning (ICSADL 2020) – organised by KGiSL Institute of Technology, Coimbatore, (2-3, Apr 2020). Published in Hemanth J., Bestak R., Chen J.IZ. (eds) Intelligent Data Communication Technologies and Internet of Things - Lecture Notes on Data Engineering and Communications Technologies, vol 57  
 Publisher: Springer, Singapore  
 Print ISBN:978-981-15-9508-0      Pages 185-198                      Online ISBN: 978-981-15-9509-7  
 DOI: [https://doi.org/10.1007/978-981-15-9509-7\\_16](https://doi.org/10.1007/978-981-15-9509-7_16)                      First Online: 13 February 2021
  
10. **Effects of the Disastrous Pandemic COVID 19 on Learning Styles, Activities and Mental Health of Young Indian Students - A Machine Learning Approach**, 4<sup>th</sup> International Conference on Intelligent Computing and Control Systems (ICICCS 2020) – organised by Vaigai College Engineering, Madurai, India, (13-15, May 2020). Published in Proceedings of the International IEEE Xplore Part Number: CFP20K74-ART  
 Publisher: IEEE                      Electronic ISBN:978-1-7281-4876-2, DVD ISBN:978-1-7281-4875-5  
 Print on Demand(PoD) ISBN:978-1-7281-4877-9                      Pages 1190-1195  
 DOI: <https://doi.org/10.1109/ICICCS48265.2020.9120955>                      Added to IEEE Xplore: 19 June 2020
  
11. **Applying Data Science Solutions In Healthcare Industry**, 4<sup>th</sup> International Conference on Information and Communication Technology for Competitive Strategies (ICTCS 2019, Dec 13-14) - Udaipur-India, published in ICT for Competitive Strategies  
 Publisher: CRC Press, Taylor & Francis Group                      Electronic ISBN:978-1-003-05209-8  
 DOI: <https://doi.org/10.1201/9781003052098-5>                      First Published: 2020

## OTHER PUBLICATIONS

- Information Practices Textbook for Class XII  
Publication Date: 1 Dec 2020 Publisher: NCERT  
Part of team for curriculum development, authoring of lessons, development of exercises and reviewing of content for class 12th Information Practices text book at NCERT, ISBN 978-93-5292-361-8
- Computer Science Text Book for Class XII  
Publication Date: 1 Sep 2020 Publisher: NCERT  
Part of team for curriculum development, authoring of lessons, development of exercises and reviewing of content for class 12th Computer Science text book at NCERT, ISBN 978-93-5292-338-0
- Information Practices Textbook for Class XI  
Publication Date: 1 Aug 2019 Publisher: NCERT  
Part of team for curriculum development, authoring of lessons, development of exercises and reviewing of content for class 11th Information Practices text book at NCERT, ISBN 978-93-5292-148-5
- Computer Science Text Book for Class XI  
Publication Date: 1 May, 2019 Publisher: NCERT  
Part of team for curriculum development, authoring of lessons, development of exercises and reviewing of content for class 11th Computer Science text book at NCERT, ISBN 978-93-5292-117-1
- Learn to Create ( A series of 5 Art and Craft books for Classes I to V)  
Publication Date: Aug 1, 2017 Publisher: Future Kids Publications Pvt. Ltd, a unit of V K Publishers & Distributor  
A series of five art and craft books "Learn to Create" for class 1 to class 5 for Future Kids Publications Pvt. Ltd, a unit of V K Publishers & Distributors. ISBN: 938691836-6, 938691837-4, 938691838-2, 938691839-0, 938691840-4
- Four Modules of E-Lessons for ILLL, DU  
Publication Date: Year 2010  
E-Lessons for Four Modules (Data Structures, Digital Design & Electronic Spread Sheets) as part of e-learning initiative of Institute of Life Long Learning (ILLL), University of Delhi

## ACHIEVEMENTS

- i. Part of organizing Team for 3 day Skill Development Program based on Terrarium, Hydroponics, Aeroponics, Floriculture and Landscaping organized by MH-Vatika: The Garden Committee and Department of Botany under the agies of IQAC Miranda House in collaboration with Indraprastha Horticulture Society and Indian Agricultural Research Institute (IARI) Pusa, New Delhi ▶ 18-20 Apr 2024
- ii. Part of organizing team for two capacity building Workshops on Value Added Courses Gandhi And Education and Constitutional Values And Fundamental Duties under NEP via Value Addition Courses Committee (University of Delhi) in collaboration with Miranda House ▶ 13 Jun 2023
- iii. Part of organizing Team for a workshop on Composting Techniques organized by MH-Vatika: The Garden Committee and Department of Botany under the agies of IQAC Miranda House in collaboration with Biomass Utilization Unit, Indian Agricultural Research Institute (IARI) Pusa, New Delhi ▶ 20 Oct 2022
- iv. Organized a webinar “CYBER UNSAFE”, attended by 210 participants ▶ 30 Dec 2021.
- v. Organized a webinar “Do I Need to Be Agile?” ▶ 12 Oct 2021.
- vi. Organized a webinar “Managing References Made Easy Using Mendeley” in collaboration with Elsevier ▶ 27 Jul 2021.
- vii. Organized an online panel discussion on “Managing Deployment of Covid Vaccinations” a case study in Business Data Analytics ▶ 06 Apr 2021.
- viii. Organized an online Fireside Chat on “Discovering Knowledge from Enterprise Data Sources” ▶ 13 Oct 2020.
- ix. Organized a workshop on “Current and Future of Digital and Cyber Forensics” ▶ 18 Sep 2019.
- x. Resource Person for the 30 hours value added course titled “SQL Basics, Machine Learning with R and Visualization Using Tableau” conducted by Vivekananda School of Business Studies, at Vivekananda

Institute of Professional Studies (VIPS), Pitam Pura, affiliated to Guru Gobind Singh Indraprastha University (GGSIPU) ▶ Nov 2019 to Jan 2020.

- xi. Coordinator for Add on course on Data Science and Analytics (using R language), Miranda House, DU ▶ Sep 2019 -Jul 2022.
- xii. Resource Person for PYTHON PROGRAMMING at FDP conducted by Faculty of Computer Applications, MRIIRS in association with IEEE and CSI on July 06, 2018.
- xiii. Reviewed a book titled “Object Oriented Programming with C++ (1<sup>st</sup> revised edn)” by Reema Thareja published by Oxford University Press. ISBN: 0-19-948567-4 (Mar to May 2015)
- xiv. Resource Person at Teacher’s Training Program in C & C++ Programming Language, University of Delhi for Department of Physics & Astrophysics, University of Delhi (08 Jun – 15 Jun 2011).
- xv. DELL EMC Academic Associate, Data Science and Big Data Analytics (30 May 2018).
- xvi. Microsoft Certified Professional for Application Development in VC++ using MFC Library.
- xvii. Developed a graded question bank for mathematics teachers (support material) for class 1 to class 5 for Bharati Bhawan Publishers & Distributors.
- xviii. Mentored students as part of Delhi University Innovation Project – MH 309 Reward Network as a Form of Experiential Marketing.
- xix. Coordinated the following workshops for students of Department of Computer Science, Miranda House which helped them to gain knowledge on latest topics apart from their curriculum:
  - a. Red Hat (Linux) Workshop (27 March and 28 March, 2014)
  - b. Campus to Corporate (24 February, 2014)
  - c. Science of developing Android Apps (24 January, 2014 to 25 January, 2014)
  - d. FOSS (7th October and 8 October, 2013)
- xx. As part of the project for automation of CBI (Central Bureau of Investigation), trained Director CBI on Office Automation Package for two weeks.
- xxi. 99% marks in Computer Science in Class 12, highest in CBSE board for 1989.
- xxii. Holder of Junior Science Talent Search and Rashtriya Chattravriti Yojna Scholarships 1987.

### **Trainings and Workshops Attended**

- i. FDP - NEP Orientation and Sensitisation, organised by Online Malaviya Mission Teacher Training Programme (MMTTP), ▶ 03 Sep 2024 – 13 Sep 2024
- ii. FDP on Cyber Security, High Performance Computing, AI/ML and GenAI organized by Delhi University Computer Centre in collaboration with AWS ▶ 04 Oct 2023 - 06 Oct 2023
- iii. FDP-102: Python: Essentials, Programming and Analytics Phase-1 of Series of National Online FDPs organized by University of Delhi in collaboration with GAD-TLC, a Centre under PMMMNMTT, Ministry of Education, Government of India ▶ 27 Oct 2022 - 03 Nov 2022
- iv. Course Workshop on “Digital Empowerment” organized by Value Addition Courses Committee (University of Delhi) in collaboration with Mahatma Hansraj Faculty Development Centre, Hansraj College ▶ Oct 19, 2022
- v. Workshop titled “Implementation of NEP 2020: Implications for Undergraduate Colleges” by Dr. Leena Gahane at Miranda House, University of Delhi ▶ 23 Sep 2022
- vi. Online FDP “Natural Language Processing and It's Applications” organized by Department of Computer Science P.G.D.A.V. College (M), University of Delhi under the Pandit Madan Mohan Malviya National Mission on Teachers and Training scheme of MHRD, Hansraj College (University of Delhi) ▶ 5 Mar 2022 - 11 Mar 2022 (1 week)
- vii. Online Elementary FDP on "Computational Intelligence" organized by AICTE Training And Learning (ATAL) Academy at National Institute of Technology Agartala ▶ 03 Jan 2022 to 07 Jan 2022
- viii. “Strengthening Your Understanding of Research Journals“ (Reading, Referencing and Publishing)”, a webinar organised by K. J. Somaiya College of Science and Commerce in collaboration with ELSEVIER ▶ 10th July, 2021
- ix. “Applications of Mathematics in Business and Social Sciences” - Interdisciplinary Online FDP organized by Department of Mathematics & IQAC, Miranda House, University of Delhi under the Pandit Madan Mohan

- Malviya National Mission on Teachers and Training scheme of MHRD, Hansraj College (University of Delhi) ▶ 18 Mar 2021-24 Mar 2021 (1 week)
- x. “Refresher Course on Data Analysis With Statistical Methods”- organized by TLC, established under the Pandit Madan Mohan Malviya National Mission on Teachers and Training scheme of MHRD, Ramanujan College (University of Delhi) ▶ 21 Dec 2020-03 Jan 2021 (2 weeks)
  - xi. “Digital Pedagogy to Enhance Teaching and Learning Experience”- organized by Maiteryi College in collaboration with Teaching Learning Centre (TLC), SGTB Khalsa College, University of Delhi, under MHRD, Government of India (PMMMNMSTT), ▶ Dec 15-21, 2020 (1 week)
  - xii. FIP 04- Faculty Induction/Orientation Programme– organized by TLC, established under the Pandit Madan Mohan Malviya National Mission on Teachers and Training scheme of MHRD, Ramanujan College (University of Delhi) ▶ 10 Nov-09 Dec 2020 (4 weeks)
  - xiii. “Role of Natural Language Processing in Business and Research” – organized by Institute of Management Studies, Ghaziabad. ) ▶ 17-21 Jun 2020 (1 week)
  - xiv. “Open-Source Tools for Research” – organized by TLC, established under the Pandit Madan Mohan Malviya National Mission on Teachers and Training scheme of MHRD, Ramanujan College (University of Delhi) ▶ 7-14 Jun 2020
  - xv. "Managing Online Classes and Co-Creating MOOCs" – organized by TLC, established under the Pandit Madan Mohan Malviya National Mission on Teachers and Training scheme of MHRD, Ramanujan College (University of Delhi) ▶ 18 May-3 Jun 2020 (Two Week- FDPMOOCs02).
  - xvi. ‘Indo-Muscat one-week Virtual workshop on Research Writing Skills’- Organized by University Center of Research and Development (UCRD) Galgotias University ▶ 26-30 May 2020.
  - xvii. Summer School on AI Assisted Data Analytics at IIIT-Delhi ▶ 11-14 Jul 2019
  - xviii. FDP on Hadoop (Hortonworks) at RLA College -Delhi University by ICT Academy ▶ 21-25 May 2018
  - xix. FDP on Data Science and Big Data Analytics at JIMS-Vasant Kunj by ICT Academy ▶ 15-19 May 2018
  - xx. Machine Learning A-ZTM: Hands-on Python & R in Data Science online course at Udemy ▶ Apr 2018.
  - xxi. Statistics for Business Analytics A-ZTM online course at Udemy ▶ Apr 2018.
  - xxii. Data Science and Analytics (using R language), Miranda House, DU ▶ Jan 2018-March 2018.
  - xxiii. Participated as Resource Person in 3 days workshop entitled “Development of Syllabus and Textbook in Computer Science for class XI” organized by NCERT, New Delhi, ▶ 27 Feb-1 Mar 2018.
  - xxiv. Participated as Resource Person in 2 days workshop entitled “Development of Syllabus and Textbook in Computer Science and Information Practices for class XI and XII” organized by NCERT, New Delhi, ▶ 17 -18 Jan 2018.
  - xxv. Participated as Resource Person in 5 days workshop entitled “Development of Syllabus and Textbook in Computer Science for class XI and XII” organized by NCERT, New Delhi, ▶ 11-15 Dec 2017.
  - xxvi. Workshop on PHP and MySQL, DUCC, DU ▶ 19-23 Dec 2016
  - xxvii. FDP on Algorithms, Dept. of Computer Science, DU in collaboration with ACM India Education and ACM Delhi NCR Chapter ▶ 07-13 Jul 2016
  - xxviii. Third International Conference on Big Data Analytics at IIT Delhi ▶ 19-23 Dec 2014
  - xxix. Creative, Serious and Playful Science of Android Apps offered by University of Illinois At Urbana-Champaign's via virtual course coursera.org ▶ Feb 2014
  - xxx. Orientation Course on “Foundation Course in Information Technology at Centre for Professional Development in Higher Education, DU ▶ Feb 2014
  - xxxi. Emerging Trends & Technologies in the Virtual K-12 Classroom offered by University Of California Irvine via virtual course coursera.org ▶ Dec 2013
  - xxxii. Basic and Advanced Algorithmic Techniques at Dept. of Computer Science, DU ▶ 20-25 Apr 2009
  - xxxiii. Blended Learning Techniques at Open School Campus, DU ▶ Nov 2007 and Jun 2007
  - xxxiv. VLDB Summer School on Data Mining at IIT Delhi ▶ June 2004
  - xxxv. Software project management course conducted by TCS ▶ Dec 2001

- xxxvi. ISO Internal Auditor Training conducted by IIQM ▶ Oct 2001
- xxxvii. MS Tech Ed 2000, Mumbai ▶ Aug 2000
- xxxviii. Rational Rose, Clear Case, Team Test, Requisite Pro from Rational Corp. ▶ Aug 2000
- xxxix. Visual Basic 6.0 from CMC E&T ▶ Jun 2000
  - xl. Oracle DBA - in house training at CMC ▶ Oct 1998
  - xli. Basic Java Programming - at Competency Centre for Java India ▶ Sep 1998
  - xlii. Advanced Java Programming - at Competency Centre for Java India ▶ Sep 1998
  - xliii. Windows NT 3.51 from STG ▶ May 1996
  - xliv. Microsoft Visual C++ 2.0 from STG ▶ Jun 1996
  - xlv. MFC 3.0 from STG ▶ Jun 1996
  - xlvi. Student Management Skills - in house training at NIIT SEED ▶ May 1995
  - xlvii. Ingres 6.4 from Mastek ▶ Dec 1994