

Respected Sir/Madam,

I hold a Bachelor's degree in Advanced Zoology and Biotechnology, and a Certificate in Dyslexia Teacher's Training, after which I pursued my Master's degree in Neuroscience. To begin with, I had gained hands on training in experimental research and animal handling at the University, in addition to research writing and literature review. I worked as a Special Educator, and helped children with Autism, ADHD and Dyslexia especially during the pandemic times. I pursued a Certificate Program in 'Advanced Medical Coding' from Iskills Solutions, Chennai and 'Job-Oriented Patent Analyst Training Program' from Indian Institute of Patent and Trademark, New Delhi, where my role as a Patent Analyst Intern involved practicals on Prior Art Search using various patent search databases such as IPO, EPO, USPTO, WIPO and Google Patents, as well as using non-patent databases such as Science Direct and Google Scholar. Furthermore, I possess sound understanding of Patent laws, and had gained the skills of Patent analysis by comparing various patents, Prior Art Search and Keyword Search using appropriate Search Query, Infringement Analysis and Claim mapping, Validity Search and Patentability Report Making, Trademark Search and Trademark Report Making. I pay attention to detail, and keep myself updated on the latest findings in life sciences through journals, books and videos, in addition to my ability to organise any written content in a way that's easily readable. The inquisitiveness to learn about various scientific inventions and the passion to make a difference in people's lives, drives me to pursue a career in the IP sector. I'm a quick learner and a team player. I'm open to acquiring new knowledge and skills that would make me an asset to your company.

If given the opportunity, I assure you that I'll do my best. Please take a few moments to review the attached resume. I look forward to hearing from you soon.

Thank you,

Regards,

Malvika.

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Nationality: Indian

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Languages known: Tamil,English

EXECUTIVE SUMMARY

M.Sc Neuroscience Graduate from University of Madras and a Patent Analyst at Indian Institute of Patent and Trademark

PROFESSIONAL SKILLS

- Experimental Research
- Medical Coding(ICD and CPT)
- Patentability and Prior Art Search
- Teaching
- Good oral and written communication skills
- Innovative and pay attention to detail
- Resilient and hard working
- Good listener and a team player

EDUCATION

1. Holy Angels Anglo Indian Higher Secondary School (2016), Chennai.
2. B.Sc Advanced Zoology and Biotechnology (2019), Women's Christian College, First Class.
3. M.Sc Neuroscience (2021), University Of Madras, First Class.

PROFESSIONAL SKILLS DEMONSTRATED

A) Patent Analyst

Interpretation of technical information of the patent document and prepare reports,at Indian Institute of Patent and Trademark,New Delhi, under the guidance of Ms.Cheshta Sharma,Director of IIPTA.

- **Patentability Search:** Analysing the novelty and non-obviousness of an invention.
- **Prior Art Search:** Analysing the existence of prior information using databases such as WIPO,inPASS, USPTO, EPO and Google Patent.
- **Report Preparation:** Prepare patent analysis reports.

B) Medical Coder

Interpretation of medical diagnosis and services reports,and prepare appropriate medical codes,at Iskills Solutions,Chennai

- **Report analysis:** Understand client requirements and specifications of the project and code the charts accordingly
- **Coding:** Code records following prescribed coding standards such as ICD-10 and CPT, and assign appropriate medical codes to all diagnosis and services.

C) Researcher

1. B.Sc Advanced Zoology And Biotechnology

a) On The Job Training

On The Job training in various functional units of laboratory which includes Phlebotomy, Haematology, Biochemistry, Cytology, Serology and Bacteriology from Heavy Vehicles Factory Hospital, Department of Pathology, Chennai.

- **Bacteriology:** Gram staining and Ziehl-Neelsen staining for the diagnosis of Tuberculosis
- **Phlebotomy:** Drawing blood from patients using a syringe using a syringe and labelling of the collected blood samples.
- **Haematology and Cytology:** Determining the blood group of patients by performing ABO blood typing, analysing the blood clotting status of patients using Thrombostat Automated Coagulation Analyzer and an Haemoglobin Analyzer to detect the concentration of haemoglobin in blood or urine sample and calculating the Erythrocyte Sedimentation Rate to detect any inflammation in the body.
- **Biochemistry:** Handling of various Automated and Semi-Automated Biochemistry Analyzers to detect the presence of various components such as sugar,cholesterol proteins etc in body fluids.
- **Serology:** Performing Coomb's test to detect the presence of antibodies on the surface of red blood cells and Enzyme Linked Immunosorbent Assay(ELISA) to detect the presence of antibodies in the serum of patients.

b) Research Project

Repellent activity of *Periplaneta americana* against odoriferous oils.

- **Animal handling:** Handling of insects such as *Periplaneta americana*.
- **Behavioral assessment:** The repellent activity of insects against various types of odoriferous oils were assessed.
- **Interpretation and analysis of results:** The results of the behavioral assessments were interpreted using Graph Prism software, and one-way ANOVA was the technique utilised to determine the statistical significance of the study.
- **Research writing:** Performing literature survey and drafting dissertation.

2. M.Sc Neuroscience

a) On The Job Training

1) Skill Based Internship Programme on "Laboratory Animal Sciences for Researchers" organised by RUSA-2.0 Entrepreneurship & Career Hub, University of Madras via online and offline sessions about,

- **Lab Safety and Animal Care:** Ethical Guidelines for the Use of Animals in Research.
- **Animal Handling and Drug Administration:** Handling of animals such as rats and administration of drugs via oral, subcutaneous, intravenous and intramuscular routes.
- **Transcardial perfusion:** Performing Transcardial Perfusion in rats in order to fix the tissues of the body.
- **Vaginal Smear Analysis:** Performing Vaginal Smear Analysis for determining the estrous phase in rats by observing the cells under the microscope based on the morphological features.

2) An Industrial Visit as a part of the Internship Programme to Vanta Bioscience Company, Preclinical Contract Research Organization at Gummidipoondi, Chennai is a center for GLP toxicology and safety assessment offering services in India, and visited various laboratories such as,

- **Haematology:** Working of Siemens Blood Counter and Biochemistry Analyzer.
- **Necropsy:** Animal sacrifice and preservation of fixed tissues.
- **Pathology:** Tissue embedding and section cutting using rotary microtome and staining of tissues.
- **Analysing rooms:** Working of High Performance Liquid Chromatography(HPLC) and Mass spectrometry which are crucial analysis techniques used to identify and quantify food compositions, pharmaceuticals, and other bioactive molecules of various products to be tested.
- **Gene toxicology:** Cell culture studies investigating any chromosomal mutations or other effects caused as a result of various testing agents.
- **Breeding rooms of animals:** Breeding of animals such as Rabbits, Mice, Rats, Guinea pigs, Fishes and birds (chicken, pigeon).
- **Microbiology culture labs:** Culture of Ecoli and Salmonella.
- **Ecology labs:** Culture of Honeybees, Daphnia, Earthworms and Lemna gibba.

b) Research Project:

Effects of mild and intense swimming exercise on cognitive functions of male Wistar albino rats.

- **Animal handling:** Handling of male Wistar albino rats in the Animal House Facility, feeding and weighing the rodents and subjecting the rodents to mild and intense swimming exercise.
- **Administration of drugs:** The drugs were administered to the rodents through oral, subcutaneous, intravenous and intramuscular routes.
- **Transcardial perfusion:** Performing transcardial perfusion and dissection of fixed organs after sacrifice.
- **Behavioral assessments:** The cognitive functions of rodents were analysed using behavioral assessments such as Novel Object Recognition, Morris Water Maze, T-Maze and Elevated-Plus Maze.
- **Histological assessments:** Tissue processing, staining procedures, tissue sectioning using rotary microtome were performed, and the sections were observed under the light microscope.
- **Interpretation and analysis of results:** The results of the behavioral assessments were interpreted using Graph Prism software, and one-way ANOVA was the technique utilised to determine the statistical significance of the study.

The pictures of histological sections of rodent brains were taken using Leica light microscope and the results were interpreted from the analysis.
- **IHC procedures:** Assisted and observed several Immunohistochemistry procedures such as ELISA and Western Blot.

D) Educator

1. Dyslexia Trainee Tutor

- **Mode of Class:** Conduct physical, one-on-one sessions for children with special needs.
- **Learning and Behavioral assessments:** Assess Conceptual Development, Attention, Memory, Creativity, Phonological awareness, Reading, Writing, Numerical ability, as well as Impulsivity and Hyperactivity.
- **Implement innovative teaching strategies:** Establish suitable lesson plan and teaching strategy for each child, based on the assessment.

2. Special Educator

- **Mode of Class:** Conduct one-on-one sessions via online mode for children with special needs such as ADHD, Autism and Dyslexia.
- **Learning and Behavioral assessments:** Assess Conceptual Development, Attention, Memory, Creativity, Phonological awareness, Reading, Writing, Numerical ability, as well as Impulsivity and Hyperactivity.
- **Implement innovative teaching strategies:** Establish individual lesson plan for each child based on the assessment, to improve academic performance as well as behavioral and emotional dysregulation, with the aid of technology.
- **Communication with parents:** Communicate with parents to better understand the needs of the child.
- **Team work and group discussions:** Follow up on meetings and group discussions with co-workers and parents, and to co-teach based on the needs of the child.
- **Create assessment reports:** Create an assessment reports for children based on their progress during the course, which is essential for inclusion in regular schools.
- **Supervise and mentor college students:** Supervise and mentor college students during their internship, which involves conducting online assessments and classes for children with special needs and to give suitable feedback based on their performance.

CERTIFICATIONS

Serial number	Certificate obtained	Place	Year
1	On the job training in the Department of Pathology	Heavy Vehicles Factory Hospital, Department of Pathology	2017
2	Rachel Philip Endowment Workshop Microscope:Its utility in cell studies & foldoscope outreach workshop	Women's Christian College, Department of Advanced Zoology & Biotechnology	2018
3	Certificate Course in Dyslexia	Believers School of Education In collaboration with the Department of Psychology, Women's Christian College	2018
4	Volunteer of N.S.S Special Camp	Villangadupakkam	2018
5	Neuroscience of Human Movements	NPTEL, IIT Madras	2019
6	Language and Mind	NPTEL, IIT Madras	2020
7	Psychiatry-An Overview and How the Brain Creates Mind	NPTEL, IIT Kanpur	2021
8	Internship on Laboratory Animal Sciences for Researchers	RUSA Entrepreneurship & Career Hub, University of Madras	2021
9	Introduction to Psychology	NPTEL, IIT Kanpur	2022
10	Human Behaviour	NPTEL, IIT Guwahati	2022
11	Advanced Medical Coding	Iskills Solutions	2022
12	Job Oriented Patent Analyst Training Program	Indian Institute of Patent and Trademark	2022