# Venkata Vishal Kotari

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## EDUCATION

**University of Sydney**                                                                                    **Sydney, Australia**
*Master of IT and IT Management, Major in Data Management and Analytics*                 *December 2024*
- Relevant Coursework: Advanced Data Models, Cloud Computing, Design Thinking, Visual Analytics, Business Process Management

**Osmania University**                                                                                         **Hyderabad, India**
*Bachelor of Engineering, Major in Computer Science*                                                      *June 2022*
- Relevant Coursework: Data Structures and Algorithms, Database and Systems, Artificial Intelligence, Information Retrieval Systems

## WORK EXPERIENCE

**University of Sydney**                                                                                    **Sydney, Australia**
*Casual Academic*                                                                                         *July 2024 - Present*
- Conducted tutorials and facilitated group discussions for 100+ students, promoting collaborative learning and critical thinking through interactive engagement.
- Designed and delivered interactive workshops, incorporating multimedia tools to enhance student participation and comprehension of key concepts
- Evaluated and provided detailed feedback on student assignments, ensuring clarity, and academic support.

**SUPRA (Sydney University Postgraduate Representative Association)**                  **Sydney, Australia**
*Co-secretary*                                                                                            *July 2024 - Present*
- Represented 30,000+ postgraduate students, communicating their interests and issues to university executives, staff, and councillors.
- Coordinated high-level meetings, managing agendas, minutes, and official records to ensure transparency and compliance.
- Streamlined communications, handling inquiries, enforcing policies, and enhancing cross-department collaboration.

**Practera**                                                                                                          **Remote**
*Student Consultant Intern*                                                                  *February 2024 – February 2024*
- Analysed competitor metrics revealing positive follower growth momentum, then implemented targeted SEO optimisation in page content to sustain 50-day visitor growth trend.
- Developed quarterly performance targets balancing followers, posts, and reposts metrics to systematically improve engagement rates.
- Redesigned ideas on LinkedIn with custom buttons and enhanced product pages, incorporating company culture content to humanise brand and improve lead conversion.

## ACADEMIC & PERSONAL PROJECTS

**Course Feedback System**
- Developed a MERN stack course feedback system for Youth Justice NSW, streamlining data collection and minimising manual input errors.
- Designed an intuitive React frontend and optimised the backend for efficient data handling, enabling actionable insights for training improvements.

**Brompt: Enhancing User Prompts**
- Fine-tuned Meta's Llama 3.2-3B using LoRA and 4-bit bitsandbytes quantisation, reducing GPU memory consumption by ~60% while maintaining model accuracy.
- Trained on user prompts with trl and peft, improving structured prompt generation by 30% and optimising loss with W&B through fine-tuned hyperparameters.

**Diabetic Retinopathy Classification Model**
- Fine-tuned a deep learning model using ImageNet for feature extraction and Fastai's ImageItemList for data augmentation, achieving a 90.9% AUC on 35,000+ fundus images.
- Developed a cloud-based Flask GUI for real-time fundus image classification, enabling users to upload images and receive model predictions.

**Data Analysis and Visualisation on Unicorn Companies**
- Analysed investment networks of 113+ American unicorns using Gephi, Python and Machine learning, identifying key investors and industry clusters through network visualisation.
- Extracted insights from 1000+ investor connections, mapping relationships and highlighting investment trends to inform fundraising

**Neo4j Graph Network Analysis**
- Designed and implemented a Neo4j graph database for an airport network, structuring nodes and relationships for efficient querying.
- Developed optimised Cypher queries for route optimisation, airline analysis, and proximity searches, leveraging indexes, APOC procedures, and spatial functions for faster execution.

**US Consumer Finance Complaints Dashboard**
- Analysed over 75,000 consumer finance complaints, identifying patterns and trends to better understand consumer concerns.
- Developed an interactive Tableau dashboard using advanced visualisation techniques to display key insights and trends from large datasets.

## LEADERSHIP EXPERIENCE

**University of Sydney, Faculty of Engineering**                                           **Sydney, Australia**
*Lead Advisor*                                                                    *February 2024 – November 2024*
- Conducted induction programs, workshops and events to help students transition into university life.
- Guided over 1,000 students to university resources and services, ensuring they could navigate their first semester and get most of their university life.

**Google Developer Student Club**                                                        **Hyderabad, India**
*Core Team Member*                                                                *September 2021 – June 2022*
- As a Core Member of the Google Developer Student Club, I organised workshops on technologies and Python programming for more than
- 50 students, helping them enhance their skills and encouraging peer-to-peer learning in my bachelors.

## SKILLS & INTERESTS

**Technical Skills:** Inference, MongoDB, AWS, ETL, Git, PowerBI, Tableau, Jira, Linux
**Languages:** JavaScript, Python, SQL, R, MATLAB, Bash
**Soft Skills:** Teamwork, Leadership, Problem Solving, Time Management, Willingness to Learn
**Interests:** Hiking, Swimming, Reading, and Podcasts