Yuvaraj Tankala

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PROFESSIONAL SUMMARY

Results-oriented Computer Science Engineer with a strong academic foundation from SRM University and the University of California, Berkeley. Experienced in software development, data structures, and algorithms, with a passion for building scalable and efficient systems. Skilled in collaborative problem-solving, innovative thinking, and leveraging technology to address real-world challenges. Adept at working in cross-functional teams, with a proven ability to adapt to dynamic and fast-paced environments. Seeking to contribute technical expertise and leadership skills to drive impactful projects in software engineering and technology innovation.

SKILLS

Languages	Python, C/C++, Java, MATLAB, LaTeX
Development	Blockchain, Solidity, Staking, GPT, Django, Node.js, REST, FastAPI, JavaScript, Web Scraping, React
Databases	VectorDB, Pinecone, MySQL, SQL Server, PostgreSQL, MongoDB
Cloud Services	Amazon Web Services (AWS), Microsoft Azure, Google Cloud Platform (GCP)
DevOps	Hadoop, Cloud Deployments, Big Data, Data Mining, Telegram, Twilio Chat Bot, Notion, Jira, GitHub
Research Tools	MATLAB, TensorFlow, PyTorch, Scikit-learn
Soft Skills	Leadership, Problem-Solving, Collaboration, Communication, Strategic Planning, Mentorship

EXPERIENCE

Share Ventures - Entrepreneur In Residence — Dec 2022 – Present
Remote, USA
- **Startup Screening** Analyzed and screened over **1,000+ startups**, leveraging **AI** and **data analytics** to inform investment decisions and identify high-potential ventures.
- **Strategic Insights** Coordinated with high-profile **venture capital partners** and **high-net-worth individuals (HNIs)**, providing strategic insights that influenced key investment strategies and portfolio allocations.
- **AI Integration** Led consulting initiatives integrating advanced **AI solutions** into the investment process, resulting in a significant increase in **successful deal closures** and overall **portfolio performance**.
- **AI Product Development** Developed an **AI Product Manager** with a swarm of custom **AI agents** to autonomously oversee tasks, manage deadlines, and automate outreach with **AI BDR agents**, boosting efficiency and integration in tech management.
- **VC Firm Growth** Leveraged AI to boost a VC firm's growth by **4.7%**, enhancing market position with **LLM strategies** and complex document intelligence for **deal flow** and **due-diligence**.

CoinDCX - Software Engineer — Sep 2022 – Nov 2022
Karnataka, India
- **Microservice Development** Developed a **protocol-agnostic script** and **microservice**, facilitating the onboarding of **10M+ pools** using **ElasticSearch**, **REST**, and **Web3**, empowering users to seamlessly integrate with the DeFi ecosystem.
- **DeFi Pipeline Optimization** Engineered a **DeFi pipeline** with load-balancing capabilities, managing traffic for **13M+ active users** using **cloud-based solutions**.
- **Blockchain Research** Researched **blockchain validators**, synchronized nodes, and collaborated with teams to refine a state-of-the-art **DeFi platform**.

Walmart - Software Associate — Jun 2022 – Jul 2022
Tamil Nadu, India
- **Project Management Tools** Managed global software maintenance using **JIRA** and **Confluence** to create user stories and product backlogs, enhancing team communication and **project efficiency**.
- **Team Collaboration** Orchestrated **application changes** and collaborated with senior product managers and a **15+ member team** to translate feature requirements into actionable tasks.

Awair Sense YC'21 - Machine Learning Engineer — Jan 2021 – Feb 2022
Karnataka, India
- **Team Leadership** Founding Engineer managing a **6-member cross-functional team** (product, engineering, sales, support) and coordinating with **10+ business partners** toward the successful launch of a **data-driven dashboard**.
- **Backend Development** Developed **backend APIs**, streamlined data with **MongoDB**, and utilized **AWS & GCP services** for monitoring, security, and compliance.
- **System Management** Managed **Unix/Linux systems**, integrated cloud solutions, and conducted regular **code reviews**.

EDUCATION

B.Tech., Bachelor of Technology in Computer Science and Engineering — 2019 – 2023
SRM University Amaravati, India — GPA: 9.38/10
- Completed a comprehensive curriculum in Computer Science and Engineering, focusing on software development, algorithms, and data structures.
- Engaged in multiple projects emphasizing innovation and real-world problem-solving.

Startup Semester Program — 2023
University of California, Berkeley, USA — GPA: 3.8/4
- Participated in an intensive startup-focused academic program, enhancing entrepreneurial and technical skills.
- Collaborated with global peers on startup projects, fostering leadership and innovation.

JOURNAL PUBLICATIONS

1. *Improving Energy Efficiency and QoS of LPWANs for IoT Using Q-Learning Based Data Routing.* Pandey, O. J., Yuvaraj, T., Paul, J. K., Nguyen, H. H., Gundepudi, K., & Shukla, M. K. (2021). *IEEE Transactions on Cognitive Communications and Networking (IF: 8), 8(1), 365-379.*
2. *Demonstrating Low-Cost Unmanned Aerial Vehicle for Anti-Poaching.* Paul, J. K., Yuvaraj, T., & Gundepudi, K. (2020, December). *In 2020 IEEE 17th India Council International Conference (INDICON) (pp. 1-7). IEEE.*
3. *A Content-based Image Retrieval Scheme with Object Detection and Quantized Color Histogram.* Tankala, Y. (2021). *International Journal of Computational Science and Engineering.*
4. *OptRISQL: Towards Performance Improvement of Time-Varying IoT Networks Using Q-Learning.* Sharma, N., Thota, V. S. P., Yuvaraj, T., Tripathi, S., Pandey, O. J. (2024). *IEEE Transactions on Network and Service Management.*
5. *Mitigating Health Risks and Ensuring Safe Video Streaming Environments through Automated Video Content Moderation.* Kumar, M., Yuvaraj, T., Priya, G. S., Manikandan, V. M. (2023). *In 2023 International Conference on Quantum Technologies, Communications.*
6. *A Multipurpose Artificial Intelligence Based Attentiveness Monitoring System.* Tankala, Y., Paul, J. K., Manikandan, V. M. (2021). *International Journal of Advanced Research in Engineering and Technology.*

HONORS AND AWARDS

Scholarship: Secured 100% Scholarship ($20,000) to pursue a semester at University of California, Berkeley, and 50% Scholarship ($6,000) to pursue a Bachelor's at SRM University.
Research: Published 3+ IEEE Research Journals and Transactions with Impact Factors of 7, cited by over 20 global scholars.
Map the System & SCET Collider Cup 2022: Selected as Finalist to represent UC Berkeley at Oxford University, UK.
Hackathons: Secured a position in the top 5 out of 100,000+ teams in global hackathons organized by Atlassian, Rakuten, Route Mobile, Datastax Astra, SFSU, UCLA, CoinDCX, and other global companies. Won 20+ International Hackathons and featured in *Forbes*.
Startup: Startup Initiative sponsored by Amazon Founders Program with AI-powered solution credits worth $1,000 for utilizing Amazon Web Services.
Amazon ML Summer School 2022: Selected to explore industrial applications of Machine Learning with the Amazon ML team.
Yvonne and Andrew Koenig Biomedical Research Scholarship: 2020, 2021.
Dr. Beiyun Chen & Dr. Zhi Li Biomedical Research Bursary: 2019.
Joseph Katz Memorial Scholarship: 2019.
McGill Science Award: 2015.

PROJECTS

QuantiNest: AI Powered Finance Analysis Assistant

- **Trading Strategy Optimization:** Designed QuantiNest, a platform to optimize trading strategies and perform market sentiment analysis using large language models (LLMs).
- -2pt **Dynamic Strategy Adjustment:** Utilized real-time sentiment analysis and predictive modeling with LLMs using a **weekly shifting window** to enable dynamic adjustments to trading strategies in response to evolving market conditions.
- **Predictive Algorithms:** Created predictive algorithms to forecast market trends and optimize asset allocations, resulting in an annual performance 5% higher than the S&P 500 index.

BuzzBot: Automated Social Media Marketing Tool

- **Content Automation:** Created BuzzBot to automate content generation and scheduling, leveraging LLMs to enhance content creation and streamline social media workflows.
- -2pt **Trend Analysis:** Analyzed **social media trends** and user engagement using **NLP** and **LLM techniques**, enabling data-driven optimizations for content relevance and optimal posting times.
- **Cost Optimization:** Anticipated a 15% decrease in Cost Per Click (CPC) and a 10% reduction in Customer Acquisition Cost (CAC) by leveraging optimized ad targeting and content strategy, based on current market benchmarks.

MindPalace: Enhanced CRM Solution for Business Leaders

- **Data Automation:** Developed MindPalace, a CRM tool that utilizes LLMs for visual analytics to automate data interpretation and reduce human involvement.
- -2pt **Natural Language Interaction:** Applied LLMs and **machine learning algorithms** for **natural language interaction**, anticipating a reduction of **8 hours of manual work per week**.
- **Strategic Insights:** Applied LLM-driven clustering and classification to transform data into actionable insights for strategic planning.

RESEARCH EXPERIENCE

International Research, Co-Author — Jan 2019 – Feb 2022
University of Saskatchewan & IIT (BHU) Varanasi — Remote
- Work guided by Dr. Ha H. Nguyen, Professor & NSERC/Cisco Industrial Research Chair, University of Saskatchewan, and Dr. Omjee Pandey, IIT (BHU) Varanasi, IEEE Senior Member, for **2 IEEE Transactions**.
- Achieved at least **200%** higher residual energy in IoT devices and **163%** higher data packet throughput compared to 4 pre-existing methods, in real-field LPWAN testbed simulations.
- Active contributor to **IEEE Transactions on Network and Service Management (Impact Factor: 8+)**, with **2 papers published**.

Undergraduate Researcher, Co-Author — Jun 2022 – Feb 2023
SRM University Amaravati, India — India
- Collaborated with experts on a groundbreaking **CBIR approach** that integrates **YOLO object detection** and **quantized color histograms** for improved image search capabilities.
- Achieved a **0.96 average precision** on Corel 1K and Caltech datasets, outperforming standard methods.