

KAUSHIK ALAGUVADIVEL RAMYA

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Education

New York University | *Master of Science in Computer Science* | GPA: 3.33/4.0 May 2027

- *Relevant Coursework:* Algorithms, Big Data, Information Visualization, Machine Learning, Data Science

Thiagarajar College of Engineering | *Bachelor of Technology in Information Technology* | GPA: 3.7/4.0 May 2025

- *Relevant Coursework:* Full Stack Technologies, Web Technologies, Mobile Application Development, Database Management Systems, Cloud Computing, Distributed systems, Object-Oriented Programming
- Teaching Assistant for Cloud Computing, Distributed Systems courses supporting over 200+ students

Experience

Research Assistant

April 2022 – May 2025

Thiagarajar College of Engineering | *Artificial Intelligence, Explainable AI, Deep Learning, Machine Learning Research*

- Published 3 IEEE conference papers as first author on AI, ML with 10+ total citations — [Link](#)
- Researched with Defence Institute of Advanced Technology a novel lightweight CNN architecture for UAV/Drone classification. Improved SOTA accuracy by 5% and reduced computational complexity by 7×

Software Engineer Intern

Dec 2023 – Feb 2024

Pi42 | *Built AI-powered e-commerce platform with Next.js, Node.js, API integrations, Stable Diffusion* [Link](#)

- Architected and deployed Tweeshirt, a AI-powered e-commerce platform using Next.js frontend and Node.js backend
- Implemented OAuth-based authentication with automated session management, reducing unauthorized access incidents by 90% and improving login latency by 35%
- Built RESTful APIs to asynchronously process Stable Diffusion image-generation requests, handling 300+ daily requests with <2s average response latency
- Integrated Printrove e-commerce APIs for end-to-end order fulfillment, automating 100% of order lifecycle steps including customization, payment, and shipping
- Deployed application to production with optimized builds, reducing manual intervention by 40% and cutting order-processing time by 35%

Data Analytics Intern

Jun 2023 – Jul 2023

Kaar Technologies | *Performed predictive analytics and statistical modeling with Python for business forecasting*

- Developed Python-based data pipelines using Pandas and NumPy, processing 100K+ transaction records for seasonal sales analysis
- Improved sales forecasting accuracy by 15% using ARIMA and multivariate regression models across 6+ seasonal cycles

Technical Skills

- **Languages:** Python, C, C++, Java, JavaScript (ES6+), SQL, HTML5, CSS3, Typescript, Bash/shell scripting, Excel
- **Technologies:** React.js, Next.js, Responsive Design, Node.js, Express.js, Flask, REST API, Django, Tableau, Power BI
- **Databases:** MongoDB, Firebase, MySQL, Amazon S3, DynamoDB, PostgreSQL, SQLite, Snowflake, BigQuery, Redshift
- **Cloud & DevOps:** AWS Certified AI Practitioner and ML Engineer, Azure, Docker, Git, Kubernetes, Vercel
- **ML/AI:** Deep Learning, TensorFlow, PyTorch, Keras, Scikit-learn, NumPy, pandas, Jupyter Notebook, SciPy, NLP, Matplotlib, Seaborn, Plotly, MLOps, Apache Spark, Hugging Face Transformers, LangChain, RAG, Prompt Engineering
- **AI Engineering Tools:** MLflow, FastAPI, OpenAI API, Vector Databases, CI/CD for ML, Model Monitoring
- **Architecture & Concepts:** MVC, Microservices, Serverless, OOP, Database Design, System Design, Agile, CI/CD

Projects

LegalAppa – AI-Driven Legal Document Platform | *React.js, Node.js, GenAI, LLM, Firebase, LaTeX, REST API* [Link](#)

- Engineered full-stack platform using React.js, Node.js, and Python, serving 15+ lawyers with LLM-powered document automation and LaTeX compilation for professional legal document generation
- Implemented Firebase Authentication with JWT token validation for role-based access control and built RESTful APIs handling document CRUD operations with Firestore for real-time synchronization

Locallu – Freelancer-Employer Marketplace | *Agentic AI, Python, React.js, Node.js, Firebase, MongoDB, MVC* [Link](#)

- Developed dual-sided platform connecting freelancers and employers with separate dashboards for job search, skill-based filtering, application tracking, task posting, and hiring management using AI Agents.
- Implemented MVC architecture with Express.js routing, middleware authentication, MongoDB schemas for structured data, and Firebase Realtime Database for instant notifications

HamAI – AI-Driven Personal Budgeting Platform (Production) | *React.js, Node.js, Generative AI, LLMs, Firebase* [Link](#)

- Independently built and deployed a production-grade AI budgeting platform with secure authentication, protected routes, CRUD workflows, supporting 1K+ transactions per user with persistent sessions and reducing manual data entry by 70%.
- Implemented LLM-based transaction parsing with fallback logic, automating 80–85% of expense categorization
- Designed responsive dashboards with visual analytics improving financial insight and budget tracking efficiency by 60%.