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
- **Technologies:** React.js, Next.js, Responsive Design, Node.js, Express.js, Flask, REST API
- **Databases:** MongoDB, Firebase (Firestore, Realtime DB, Cloud Storage), MySQL, Amazon S3, DynamoDB
- **Cloud & DevOps:** AWS Certified AI Practitioner, AWS Certified ML Engineer, Azure, Docker, Git, Kubernetes, Vercel
- **ML/AI:** Deep Learning, TensorFlow, PyTorch, Keras, Scikit-learn, Explainable AI, Jupyter Notebook, SHAP, LIME
- **Architecture & Concepts:** MVC, Microservices, Serverless, OOP, Database Design, System Design, Agile

Projects

LegalAppa – AI-Driven Legal Document Platform | *React.js, Node.js, Firebase, GenAI, LLM, LaTeX, REST API* Link
- Engineered full-stack platform using React.js, Node.js, and Python, serving 15+ lawyers with AI-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 | *React.js, Node.js, Agentic AI, Python, Flask, Firebase, MongoDB, MVC*
- Developed dual-sided platform connecting freelancers and employers with separate dashboards for job search, skill-based filtering, application tracking, task posting, and hiring management
- Implemented MVC architecture with Express.js routing, middleware authentication, MongoDB schemas for structured data, and Firebase Realtime Database for instant notifications

Hostel Management System (Production) | *MERN Stack, MongoDB Atlas, Cloud Deployment, React.js, Node.js*
- Independently built full-stack MERN application deployed for TCE ladies' hostel, managing 1000+ student records with admin dashboard featuring CRUD functionality for personal information, room assignments, and payment records
- Engineered MongoDB schema with optimized indexing for fast queries and using MongoDB Atlas (99.99% uptime)
- Currently in active production, reducing manual record-keeping time by 85% and eliminating 95% of data-entry errors