Adithya Krishnakumar

Software & AI Engineer | **Portfolio:** https://adkkn.github.io/portfolio/

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Education

American University of Sharjah Sep. 2021 – May 2025
Bachelor of Science in Computer Science, Minors in Data Science and Applied Math

The Millennium School, Dubai Apr. 2007 – June 2021
CBSE Curriculum - Computer Science

Experience

Data Analytics, Automation & AI Intern June 2024 – Aug. 2024
Transmed Overseas Inc, Dubai

- Developed ML models to significantly improve sales forecasting accuracy beyond current manual forecasts.
- Automated data entry and validation processes using VBA and macros, enhancing operational efficiency.
- Created an AI-powered web app to streamline IT service queries, incorporating various OpenAI models and Python Flask backend API integration with the Manage Engine IT Ticketing System for user convenience.

AI Intern May. 2024 – June 2024
Smallcap.AI

- Developed generative AI NFTs on Ethereum, integrating account abstraction wallets and IPFS.
- Leveraged OpenAI API services for advanced AI applications.

SEO & AI Blogging Intern Nov. 2023 – Jan. 2024
Inspirit.AI

- Learnt Search Engine Optimization skills under Stanford graduates, enhancing skills in content marketing.
- Authored weekly blog posts on AI to analyze SEO impact.
- Engaged with leaders to refine SEO strategies, preparing for future career opportunities.

Founder - The Artificial Intelligence Club Oct. 2023 – Jan. 2025
American University of Sharjah

- Hosted numerous workshops explaining AI concepts and providing hands-on experience for AUS students.
- Developed a fully functional AI-powered game about AI Concepts for Club Fair 2024. (LINK)

IT Student Worker – College of Engineering Sep. 2023 – May 2024
American University of Sharjah

- Maintained AUS's IT infrastructure, ensuring efficient operation of computers, servers, and network equipment.
- Collaborated with IT professionals to deploy solutions, significantly improving the digital environment at AUS.
- Resolved approximately 120 technical issues for faculty, staff, and students, improving campus technology access.

Awards & Organizations

Technical Core Team Member - Google Developers Group | *AUS* Oct. 2024 – Present

3rd Place Winner - Best Solution Champion | *RTA X Alibaba Cloud Generative AI Hackathon* Oct. 2024

- Created an interface that leveraged AI Algorithms like XGBoost & DBScan to predict new Taxi Rank Locations within Dubai and developed an hour-based prediction system to estimate the number of taxis to be sent to each existing taxi rank and assess demand based on the region of Dubai at the chosen time.

Active Students' Scholarship | *AUS (Office of Student Affairs)* Jan. 2024 – May 2024

- Recognition for extensive participation in extra-curriculars and commitment in the CSE Department.

Technical Skills

Languages: Java, Python, C/C++, SQL, JavaScript, HTML, CSS, R, MATLAB, Kotlin
Frameworks: React, Node.js, Express.js, Flask, Django
Developer Tools: Git, VS Code, Visual Studio, Android Studio, Eclipse, MySQL, Firebase
Libraries: Pandas, NumPy, Matplotlib, TensorFlow, PyTorch

Projects

AI Projects | *Python, PyTorch, TensorFlow, Pandas, NumPy, Scikit-learn, Transformers, Tokenizers, Python-CAN*

- ***OriginAI: Binary Multilingual MGT Detector:*** Fine-tuning XLM-RoBERTa with the LoRA adapter to accurately classify AI-generated text in Bulgarian, Indonesian, and Russian.
- ***Security Scripts as Stories:*** Leveraged three LLMs (GPT, Gemini, Llama) to generate CAN bus attacks on a Raspberry PI acting as an ECU and conduct intrusion detection. Developed a car dashboard UI to simultaneously show the real-time conversion of CAN bus messages to the car's speedometer and RPM meter.
- ***Deepfake Detection:*** Used a Binary Neural Network to accurately classify AI-generated images for this Computer Vision Project. F1-Score: 0.91
- ***Garbage Classification:*** Classified household waste using several ML algorithms, an ML ensemble model, and a Deep Learning (Computer Vision) model. Extracted image features using VGG16 for ML models. F1-Score: 0.93

AI Models | *Python, PyTorch, TensorFlow, Pandas, NumPy*

- ***Medical Imaging AI Model:*** This AI model interprets medical images like X-rays using deep learning, enhancing diagnostic precision and speed for conditions such as tumours and fractures, improving patient outcomes.
- ***Emotion Detection AI Model:*** This model gauges emotions by analyzing expressions, eye movements, and gestures, finding applications in customer sentiment analysis and human-computer interaction.
- ***Fake News Detection AI Model:*** Employing NLP, this model assesses linguistic patterns and sources to identify misinformation, aiding in the fight against the spread of fake news and promoting media literacy.
- ***Driver Distraction AI Model:*** Utilizing Facial Recognition features, this model determined whether the driver was paying attention to the road or not.

Web Application Development | *HTML, CSS, JavaScript, Flask, React, Node.js, SQL, Git*

- ***DARK Games Store:*** Developed a Web Application for an online Games Store with complete Database functionality. Used HTML + CSS + JavaScript for creating the webpages and integrated the MySQL back-end using Node.js.
- ***24/7 Laundromat***: Developed a React Web Application for an online Laundromat service with complete Database functionality. Used HTML + CSS + JavaScript for creating the webpages and integrated the MySQL back-end using Node.js.
- ***CalendaFlow:*** Built a simple Calendar Web Application. Used Git for Version Control and to Deploy a Calendar through GitHub Pages. (LINK)

Application Development | *Java, Python, Firebase, SQL, Android Studio*

- ***SpareHour:*** Developed a fully - functional Java Mobile Application on Android Studio with a Firebase database which provides a list of common meeting times for teams.
- ***Game of Life:*** Designed a fully - functional Game of Life simulation using Java and the Swing library. Implemented menus, resizable grids, and user – friendly buttons and sliders to simulate future generations.
- ***Hangman Game:*** Developed a user-friendly Hangman game using Python with complete MySQL integration. It includes features like a leaderboard, scoring, and user interaction.

Certifications & Programs

- **Deep Learning Specialization - DeepLearning.AI**
- **Machine Learning Specialization - Stanford / DeepLearning.AI**
- **Microsoft Azure AI Engineer Associate**
- **Microsoft Azure AI Fundamentals**
- **Gen AI, Prompt Engineering, MLOps, Kubernetes, AWS, GCP - Manifold AI Learning**
- **Google Data Analytics Professional Certificate**
- **Exploratory Data Analysis for Machine Learning - IBM**
- **Inspirit AI Ambassadors Program**
- **Inspirit AI Scholars Program**