Nivedh G Krishnan

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Education

University Of Strathclyde — Glasgow, UK
Masters Of science - Advanced Computer Science with Artificial Intelligence — *Sep. 2022 – Sep 2023*
- Attained 2:1 Degree
- Thesis: Numerical Computation of Stochastic Games

CMR IMS — Bangalore, IN
Bachelor In Computer Application — *Apr. 2017 – Aug 2020*
- Attained Distinction
- Thesis: Smart Accident detection system

Experience

Associate Software Engineer — Mar 2021 – Jul 2022
Mphasis — *Bangalore, IN*
- Engineered a Python-based data analysis tool using Pandas and NumPy, enhancing data processing efficiency by 9%.
- ntegrated RESTful APIs using Python to enhance system interoperability and enable efficient data exchange.
- Designed a Python-based task management tool, improving project efficiency by 5%.
- Improved login speeds by 7% and added multi-factor authentication using Django.
- Directed the migration of a legacy database to AWS with Python, driving enhanced operational efficiency and system scalability.
- Automated security incident responses and integrated SIEM tools for threat detection using SOAR principles.

Projects

Numerical Computation of Stochastic Games | *Python, Haskell, DP, Q-learning* — June 2023 – Sep 2023
- Adapted Haskell's compositional game theory into Python, focused on stochastic games.
- Incorporated dynamic programming and reinforcement learning, particularly Q-learning.
- Contributed to the understanding of Markov equilibria in stochastic games.

Deep Learning Breed Classifier | *Python, CNNs, Transfer Learning, AWS* — June 2023 – Sep 2023
- Optimizing CNN Performance with Transfer Learning.
- Explored techniques to improve deep neural network training for image classification (breed categorization).
- Implemented convolutional neural networks (CNNs) in Python using TensorFlow, Keras, or PyTorch.
- Investigated transfer learning and potentially meta-learning strategies to optimize model performance.
- Utilized AWS Elastic Compute Cloud (EC2) for training models and Amazon S3 for storing dataset, significantly reducing the computational load on local resources.

KeepFit | *Kotlin, Jetpack Compose, Room, Android SDK* — Feb 2023 – May 2023
- Developed an Android fitness application using Kotlin with a focus on user health and activity tracking.
- Integrated Jetpack Compose for Modern and Interactive User Interface Design.
- Utilised Room for efficient and robust local data management and persistence.
- Employed ViewModel architecture for effective UI data handling, enhancing overall app performance and user experience.

Technical Skills

Languages: Java, Python, SQL, JavaScript/TypeScript, HTML/CSS, Kotlin
Operating Systems: MacOS, Windows, UNIX
Frameworks: React, Next.JS, Node.js, PRISMA, FastAPI, Flask, Django, Spring Boot
Databases: PostgreSQL, MySQL, MongoDB, SQLite
Developer Tools: Git, Docker, AWS, Azure, Circle CI, Visual Studio, IntelliJ
Libraries: pandas, NumPy, Matplotlib, TensorFlow, Keras, PyTorch, scikit-learn, spaCy, OpenCV, OpenAI Gym
Optimizers: Stochastic Gradient Descent (SGD), Adam, Adagrad
Security Technologies: SOAR (Security Orchestration, Automation, and Response), SIEM (Security Information and Event Management)