# APARNA ULLAS

SOFTWARE ENGINEER
(MS ARTIFICIAL INTELLIGENCE)


+49 15122847792
aparnaullas97@gmail.com
16 Bertastraße, Nürnberg


## PROFILE

A proactive and detail-oriented software engineer with expertise in Artificial Intelligence and Blockchain. Experienced in designing scalable blockchain networks, and optimizing consensus mechanisms. Developed AI-driven digital twin simulations in NVIDIA Omniverse, enhancing decision-making efficiency. Led research and implementation of V-GRAIN, a deep learning model for gene regulatory network inference, significantly improving link prediction accuracy.

## EMPLOYMENT HISTORY

**2024 - PRESENT**
Intelizign | Nürnberg

### Werkstudent, AI Backend Development – Eclipse Plugin (2025)

- Developing a custom Eclipse plugin tailored for SysML modeling workflows
- Building backend services using FastAPI and Daphne, with asynchronous model integration
- Integrating OpenAI and DeepSeek language models to provide intelligent suggestions and automation features
- Designing scalable API endpoints and contributing to architecture for plugin deployment

### Werkstudent, AI & NVIDIA Omniverse (2024)

- Implemented 3D scene optimization and physics-based rendering, enhancing realism in construction and architectural simulations
- Built AI-driven digital twin simulations in Omniverse, reducing decision-processing time by 30%
- Reduced rendering time by 40% by optimizing workflows using Omniverse extensions and OpenUSD
- Worked collaboratively in a hybrid agile team delivering weekly simulation milestones

**2019 - 2024**
Rubix Technologies | Hyderabad

### Blockchain Engineer

- Key member of a six-person blockchain development team where we enhanced scalability and security, ultimately developing a brand-new layer-1 blockchain solution
- Designed and fine-tuned consensus mechanisms, improving transaction speeds.
- Implemented zero-knowledge proofs (ZKPs) for enhanced data privacy.
- Designed and optimized smart contract audits, ensuring security for ERC-20 & ERC-721 implementations
- Collaborated directly with clients to gather requirements and present technical solutions
- Launched RBX tokens successfully integrating with major exchanges

## EDUCATION

**MASTERS IN ARTIFICIAL INTELLIGENCE**
Friedrich Alexander University, Nürnberg
**2022 - 2025** **Grade: 2.3/4.0**

**BACHELORS IN COMPUTER SCIENCE**
Amrita Vishwa Vidhyapeetham
**2015 - 2019** **GPA: 8.5/10**

## TECHNICAL SKILLS

**Artificial Intelligence**

- PyTorch, Optuna, Hugging Face
- GNN, Variational Autoencoders, Attention Mechanisms, LLM, NLP
- Jetbrains, RStudio

**Blockchain**

- Smart Contract Auditing (ERC-20, ERC-721)
- Consensus mechanisms
- DeFi

**Simulation**

- NVIDIA Omniverse
- Unity, Unreal Engine
- OpenUSD

**Version Control and Methodologies**

- GitHub, GitLab CI
- Agile, Scrum
- MLOps: Docker, FastAPI, MLFlow, model versioning, ASGI (Daphne)

## INTERNSHIPS

**DEC 2021 - JAN 2022**
ZAIN KUWAIT (5G SECTOR) - 3 MONTHS

- Researched blockchain applications for secure 5G data integration
- Analyzed customer reviews to support data-driven decision-making
- Participated in client meetings, presenting potential 5G-blockchain solutions

**OCT 2020 - FEB 2021**
INDIAN NAVY - 5 MONTHS

Developed a blockchain-secured WAMPAC system for the Indian Navy, improving communication security and reducing data tampering risks by 60%
Researching and integrating solutions that provided secure data storage capabilities

**AUG 2015 - DEC 2016**
MISR, MECHATRONICS LAB - 16 MONTHS

Contributed to the development of a humanoid robot by integrating sensors, including infrared and ultrasonic sensors for motion detection, and facial recognition modules for emotion sensing, enabling responsive interactions

## PROJECTS

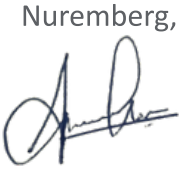
**Inferring Gene Regulatory Networks using Deep Learning from scRNA-seq Data**
Dr. Anne Hartebrodt, BIONETS, FAU

- Developed V-GRAIN, a Variational Graph Autoencoder with Attention, to infer gene regulatory networks (GRNs)
- Validated GRN predictions against real-world biological datasets
- Improved gene regulation link prediction through hyperparameter tuning with Optuna, optimizing performance

**MaDGolf: AR-Driven Golf Training Application**
Prof. Dr. Björn Eskofier, MaDLab, FAU

- Developed an AR-driven golf training app using reinforcement learning to predict optimal putt trajectories
- Integrated real-time ball trajectory visualization, enhancing golf training accuracy
- Presented a business proposal & pitch, securing investor interest

13.05.2025
Nuremberg, 90480



## PROGRAMMING LANGUAGES

- Python
- Java
- R
- Solidity
- Web3.js
- Go

## SOFT SKILLS

- Project Management
- Teamwork
- Time Management
- Leadership
- Effective Communication

## LANGUAGES

- English
- German
- Malayalam

## PERSONAL

Date of Birth: 5 October 1997
Nationality: Indian
Marital Status: Single