Neel Akash

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WORK EXPERIENCE

Arcesium (D.E.Shaw) — Hyderabad, IN

Software Engineer — July 2020 - June 2022
- Created a core accounting application from scratch to manage crucial financial assets.
- Handled the complete SDLC including deployment (CICD), metrics management (ELK) and various other AWS and Apache technologies alongside a Postgres Database.
- Used by 80% of the company as a source of information with improved reliability & scalability.
- Increased performance-to-cost ratio by 50% while maintaining SLA requirements.

Software Engineer Intern — May 2019 - July 2019
- Created a core sub-application to generate and manage financial reports like balance sheets.
- Interactive state managed React-MobX frontend with a secure backend in Java-Spring.
- Provided 100% code coverage Quality Assurance with testing using JUnit and Jest.

GMetri (XR) — Bangalore, IN

Software Developer Intern — May 2018 - June 2018
- Providing custom VR/AR/XR solutions to large-scale clients like Bosch and PayPal.
- Improved the AR app using React360 and ThreeJS managed by React-Redux and Express-SQL.
- Built an efficient data-flow graph creator to link 3D components in a VR space using react-diagrams.

PROJECTS

Audio Bid — Source, Sept - Dec 2022
- Built an online application for creators to request freelance work for audio transcription.
- A complete web application for job bidding with Django, Postgres, Google OAuth, AWS S3.
- Enriched with features such as user reviews/feedback and dynamic pricing with bidding.

Autonomous Drone Navigation — Source, Sept - Dec 2022
- Simulate simple drone navigation in the pybullets physics engine with a model crazyfile quadcopter.
- Utilize on & off policy algorithms like PPO, SAC to make it autonomous via deep reinforcement learning.
- Modify reward functions to better scale with time variants and environment collisions.

Code Character — Source, Jan - Feb 2018 & 2019
- Built an AI programming challenge where players control units in a RTS game using code.
- Served 10,000+ matches by 1,300+ players from over 70 countries.
- Worked on the C++ simulator (LLVM) and Game Renderer using PixiJS, React and Protobuff.

TECHNICAL SKILLS

Languages: C/C++, Python, Java, Kotlin, JavaScript, HTML/CSS, SQL, MongoDB
Frameworks: React.js, Redux, MobX, JQuery Node.js, Express, Flask, Django, Spring
Tools: GIT, Docker, MySQL AWS, Apache, Jenkins, CMS, Gradle, GNU/Linux, Bash

EDUCATION

Texas A&M University, College Station, TX

Master of Science in Computer Science; GPA: 3.67 — *August 2022 - Present*
- **Courses**: Machine Learning, Deep Reinforcement Learning, Software Engineering, Distributed Systems

National Institute of Technology, Trichy, India

Bachelor of Technology in Computer Science and Engineering; CGPA: 8.5/10 — *July 2016 - Sept 2020*
- **Courses**: Data Structures and Algorithms, DBMS, Computer Networks, Image Processing

ORGANIZATIONS

TAMU - Student Technician: worked with Prof. R Bettati CS-611 (Operating Systems), Sept - Dec 2022.
Delta Force - Lead Developer: part of the official WebTeam and coding club of NIT-T, July 2017 - 2020.