

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 Protobuf.

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, Cybersecurity, 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, Software Engineering.

ORGANIZATIONS

- TAMU - Software Dev:** worked with Prof. J Bullard on VCCTL software & simulator, Jun 2023 - curr.
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.