Anshul Mallick

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Education

- **Arizona State University** August 2023 - present
  Masters in Computer Science *Tempe, United States*
- **Indian Institute Of Technology (IIT) Indian School of Mines** July 2017 - May 2021
  Bachelor of Technology in Electronics and Instrumentation Engineering *Dhanbad, India*

Technical Skills

Management Tools: JIRA, Slack, Google Suite, Microsoft Excel, Microsoft Word, PowerPoint
Languages: Python, C++, ReactJS, HTML, CSS, JavaScript, SQL, GraphQL
Technologies: AWS (EC2, EKS, Lambda, S3), Snowflake, Airflow, Docker, Kubernetes, Bitbucket, Git, GitHub
Libraries/Frameworks: FastAPI, NumPy, Pandas, Boto3, Keras, Tensorflow, Sci-kit Learn

Experience

- **Ira A. Fulton Schools of Engineering - Arizona State University** October 2023 - November 2023
  Graduate Services Assistant *Tempe, Arizona*
  - **Grader CSE 340**: Served as a **Grader** for the course **CSE 340 Principles of Programming Languages.** Elevated class performance through tailored concept explanations, reviewing code and assisting 60+ students with diverse backgrounds in topics like Compiler Construction, Lexical analysis and Type Systems.
- **Invesco - AlphaNextGen (ANG) Team** November 2021 - August 2023
  Software Engineer 1 *Hyderabad, India*
  - **Data Portal APIs**: Built multiple **GraphQL APIs** for portfolio and security level accounts in **FastAPI** framework with asynchronous functionality. Optimized for performance, reducing the overall server response time by 50%.
  - **AWS Lambda Data Extraction**: Architected core functionality of Data-Extract-Lite a serverless **Lambda**-based data extraction tool that improved data extraction time by 43%, querying data from source domains and outputting to **S3** and on-prem locations.
  - **Excel Power Query Generator**: Engineered a **ReactJS** tool to transform **GraphQL** queries into MQuery for immediate use by Portfolio Managers, reducing trade placement time by 30%.
- **AI and Computing Lab, IIT Dhanbad** August 2020 - April 2021
  Research Aide *Dhanbad, India*
  - **CKD Detection**: Implemented advanced data mining under Dr. Nirupama Mandal to enhance Chronic Kidney Disease(CKD) detection using machine learning algorithms, improving screening accuracy and outcomes.
  - **Algorithm Analysis**: Drove the comparative analysis of machine learning algorithms, successfully demonstrating that Probabilistic Neural Networks (PNN) outperformed others in accurately predicting CKD stages paving the way for innovative, cost-effective diagnostic solutions.
- **Defence Research and Development Laboratory (DRDL) - DRDO,** May 2019 - July 2019
  Research Intern *Hyderabad, India*
  - **Algorithm Development**: Spearheaded the development and implementation of an advanced Radome Error Compensation Technique for Phase-based Direction Finding (DF) systems under the supervision of Dr. Venkat Kanala, Grade E Scientist
  - **Visualization Enhancement**: Leveraged Python for the creation of sophisticated data visualization tools, enhancing the analysis and interpretation of complex DF system behaviors under various environmental conditions.

Leadership Experience

- **Tutor, Fast Forward India, IIT Dhanbad** September 2019 - April 2021
  Facilitated transformative learning experiences for underprivileged students, enhancing their proficiency in both Mathematics, as a dedicated tutor for the NGO.
- Conducted one-on-one and group tutoring sessions for non-native English speakers visiting IIT Dhanbad on the foreign exchange program, focusing on language skills and academic writing.
- **Joint Secretary, Society of Electronics Engineers, IIT Dhanbad** September 2018 - May 2020
  Led 10+ workshops/seminars, boosting engagement by 25%. Handled logistics, sponsorships, and marketing, enhancing technical skill sharing.
- Launched electronics design contest for 200+ participants, promoting innovation and problem-solving. Oversaw content, judging, and logistics, fostering technical excellence.