Ahmed Juvale

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Education

Arizona State University — Tempe, AZ
Bachelor of Science in Computer Science — *Aug. 2020 – Dec. 2024*

Professional Summary

Computer Science student with 1.25 years of work experience across two internships. Focus on Machine Learning and Python. Previously worked at Samsung as a Software Engineering Intern for 3 months; implementing Full-Stack Python web applications. Held position of Product Engineer Intern at Amkor Technology, prior to Samsung, for 1 year. Responsibilities at Amkor included implementing Python ML models, as well as managing a 9 month project.

Experience

Samsung Semiconductor — Austin, TX
Software Engineering Intern — *May 2024 – Aug. 2024*

- Designed and implemented containerized Python applications, as part of full-stack development.
- Processed and reverse engineered more than 2000 data points using Python and various SQL/JQL APIs to gather previously inaccessible data.
- Worked extensively with Git, Jira, & Confluence.
- Implemented and maintained web application using Python and Flask.
- Improved efficiency through new process for data handling, improved run time from 20 minutes to under 1 minute, a 95% reduction in run time.
- Created automated scripts using PowerShell to save 5 working hours per person, per week.
- Tech Stack: Python, Git, Bash, Flask, REST APIs, JQL, SQL

Amkor Technology — Tempe, AZ
Product Engineering Intern — *Apr. 2023 – Apr. 2024*

- 1 year of experience designing and implementing predictive machine learning models for improved productivity using Python and pushing models into production applications.
- Developed Excel Macros to automate data entry processes for many different teams, leading to over 15 hours of manual work saved per work week.
- Collaborated effectively with various teams, to ensure deadlines were met and project was efficiently completed, improved turnaround time by 50%.
- Directed execution of a 9 month project, resulting in the creation of a Python machine learning model with an R^2 score of 0.92 and a mean squared error (MSE) of 0.03.
- Conducted data analysis using Python and generated reports for the team.
- Tech Stack: Python, Scikit-learn, TensorFlow, VBA, Microsoft Excel

Projects

GPU Performance Optimization Model | *Python, scikit-learn, TensorFlow*

- Developed a deep learning model using Python, TensorFlow, and Scikit-Learn to model optimal GPU performance. Done using an AMD Zen 2 GPU in a PC using Arch Linux.
- Once model's results were implemented, results on GPU were: a 15% increase in GPU efficiency and a 10% reduction in GPU energy consumption.

Focus Social Media Application | *Python, TensorFlow, React, SQL, AWS*

- Team Project (Lead a team of 3 members). Utilized Node.js and SQL for the backend and React.js for the frontend UI. Designed and developed the application using an AWS server for SQL queries.
- Used Python to create a neural network that runs within the application to suggest the user to take breaks for specific amounts of time based on their activity. The app's purpose is to allow users to track their focus periods, engage with a community, receive productivity insights, and record session details to increase productivity.

Technical Skills

Languages: Python, SQL (Postgres), JQL, Java, C/C++, JavaScript, HTML/CSS, R
Frameworks: React, Django, Node.js, Flask, JUnit
Developer Tools: Git, Docker, Jira, Confluence, VS Code, Visual Studio, PyCharm, IntelliJ, Eclipse, AWS
Libraries: Pandas, NumPy, Matplotlib, Scikit-learn, Streamlit, Django, OpenCV, TensorFlow