TARUN POTLURI

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PROFESSIONAL SUMMARY

Transitioning from a Python Developer role with a strong foundation in AI systems to a UI/UX Developer position. Experienced in designing user-friendly interfaces and enhancing user engagement through data-driven insights. Successfully led projects involving user behavior analysis and interface optimization, contributing to improved user satisfaction. Eager to apply analytical skills and design expertise to create intuitive and impactful user experiences.

TECHNICAL SKILLS

- **Programming Languages**: Python (Advanced), SQL, PL/SQL, Java
- **Data Analysis & ML**: Pandas, NumPy, SciPy, scikit-learn, Deep Learning (CNN, RNN), TensorFlow, PyTorch, Keras, Time Series Analysis
- **AI & Agentic Systems**: NLP, NLG, Intent Detection, Entity Extraction, Rule-based Systems, SpeechRecognition
- **Cloud & Security**: AWS (EC2, S3), CloudWatch, IAM, AWS Security Hub, Cloud Trail, GuardDuty
- **Backend & APIs**: FastAPI, REST API Development
- **Data Visualization**: Tableau Desktop & Server, Matplotlib, Seaborn, Plotly
- **Database & Query**: MySQL, SQLite, Google BigQuery, MongoDB
- **Big Data & Processing**: PySpark, Spark SQL, Hadoop
- **Project Management**: Agile, Scrum, Kanban, JIRA, MS Project
- **CI/CD & Version Control**: Docker, Jenkins, Git, GitHub
- **Business Tools**: Strategic Planning, Business Analysis, Data Governance, Data Compliance, Confluence, MS Office Suite

EXPERIENCE

Confidential Client (Healthcare Domain) **Aug 2025 - Present**

Python Developer

- Designed advanced applications in Python, leveraging modern frameworks to improve automation and efficiency.
- Built and incorporated pipelines for processing structured and unstructured data, enhancing accuracy and performance.
- Incorporated core modules for data extraction and classification, contributing to more reliable system outputs.
- Built rule-based and machine learning–supported components to improve decision-making capabilities in applications.
- Created dynamic content generation features to transform data into meaningful outputs, improving user interaction.
- Enhanced scalable, microservice-oriented architectures using FastAPI and PostgreSQL for secure, high-performance operations.
- Led evaluation and optimization of application components, increasing system accuracy and reducing error rates.
- Collaborated with cross-functional teams to integrate new modules into existing workflows, supporting scalability and long-term maintainability.

Spartan Solutions Inc. **Jul 2024 - Jul 2025**

Junior Data Analyst

- Led cross-functional teams using Agile/Scrum methodology in developing deep learning models for customer behavior analysis, achieving 85% accuracy in prediction models
- Designed and implemented secure cloud-based data pipelines on AWS, incorporating best practices in cloud security and compliance for processing 1M+ daily records
- Developed sector-specific solutions using deep learning techniques with PySpark, enhancing data analysis capabilities and improving decision-making processes, resulting in more accurate market predictions
- Established comprehensive Tableau dashboards for sales analytics, providing actionable insights that led to 15% revenue growth
- Enforced end-to-end MLOps pipeline using AWS SageMaker, Docker, and Jenkins for model deployment and monitoring
- Executed robust data governance protocols and security measures in a cloud environment, ensuring compliance with industry standards and enhancing data protection
- Led bi-weekly Scrum ceremonies and sprint planning sessions, ensuring timely delivery of project milestones
- Led knowledge sharing sessions on AWS best practices and TensorFlow implementations, enhancing team expertise and improving project outcomes

KENNESAW STATE UNIVERSITY **Jan 2023 - Dec 2023**

Graduate Research Assistant

- A secure environment in Google Colab using Python and SQL databases, preventing attacks like SQL Injection and XSS, which enhances data protection and system integrity
- Utilized parameterized queries, whitelist validation, and blacklist validation to enhance database security, reducing vulnerability to attacks
- Applied output encoding methods to prevent Cross-Site Scripting (XSS) attacks, improving the security and reliability of web applications
- Initiated and managed SQLite databases for testing and demonstrating secure coding practices, which facilitated effective learning and application of security measures

- Designed and executed comprehensive test cases to validate the effectiveness of security measures, ensuring robust protection against potential vulnerabilities
- Analyzed vulnerable code examples and developed secure alternatives using best practices, enhancing code security and reducing vulnerabilities
- Explored the integration of machine learning libraries (e.g., Pandas, NumPy) for data analysis in secure environments, improving data processing efficiency and security
- Gained hands-on experience with cloud-based development environments, enhancing understanding of their security implications and improving the ability to implement secure cloud solutions

EDUCATION

Kennesaw State University, GA, US
MASTER'S, COMPUTER SCIENCE ENGINEERING
- **GPA:** 3.3
- **Achievements:** Worked as a research assistant for 1 year in the security domain using Python and SQL in Google Colab
- **Coursework:** Data Science, Machine Learning, Statistical Analysis

Reva University, Karnataka, India
B. TECH, COMPUTER SCIENCE ENGINEERING
- **GPA:** 8.33/10
- **Achievements:** Projects in IoT and Python Full Stack domains

PROJECTS

Advanced SLAM Algorithm for Autonomous Robot Navigation
- A cutting-edge Simultaneous Localization and Mapping (SLAM) algorithm for autonomous robotic navigation, achieving over 90% pixel-wise mapping accuracy in diverse environments.
- Designed and implemented an occupancy grid mapping (OGM) system using OpenCV and NumPy, converting 2D images into navigable grid maps for robotic path planning.
- Integrated the A* pathfinding algorithm to generate efficient robot trajectories, demonstrating adaptability to dynamic environments and real-time path recalculation.
- Created a robust visualization module using Matplotlib, enabling real-time animation of the robot's trajectory and enhancing system interpretability.
- Conducted rigorous testing and evaluation, measuring mapping accuracy, path planning efficiency, and visualization quality to ensure system reliability.
- Explored potential applications in search and rescue operations, industrial automation, and environmental monitoring due to the system's adaptability to changing environments.

Personalized Voice Assistant
- A voice assistant using Python in VS Code with libraries like SpeechRecognition, pyttsx3, PyAudio, and gTTS
- Integrated with Dialogflow, Chatterbot, and PyTorch for natural language processing
- Enabled access to local files and basic task execution
- Fetched news using APIs

ACTIVITIES

Kennesaw Indian Students Organization
Reservation Delegate, Vice President, In-term President
- Aided as Reservation Delegate for 6 months, Vice President for 1 year, and In-term President for 6 months at Kennesaw Indian Students Organization

REVA Rotaract Club
Treasurer, Vice President
- Served as Treasurer for 2 years and Vice President for 1 year at REVA Rotaract Club

CERTIFICATION

- Published research paper in IEEE AIIOT 2023 conference for "Secure Software Development in Google Colab" (Awarded as Best Paper)
- Published research paper in IACIT 2022 for "Design and Development of News App for Android"
- Achieved certifications in IoT, AI, Raspberry Pi, Android Studio, and SQL