VARUN PULIPATI

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CAREER OBJECTIVE

Dedicated Software Development Engineer with over 4 years of experience designing and deploying scalable, secure applications across healthcare, fraud detection, and augmented reality domains. Proficient in Python (Django, Flask), cloud integrations (AWS, Docker, Kubernetes), and real-time data processing.

EXPERIENCE

Software Development Engineer   July 2024 - current
Syneos health   *Chennai, India*
- Developed RESTful APIs and backend modules using Python (Django, Flask) while integrating real-time data pipelines with Kafka, and built dynamic front-end interfaces with Angular frameworks to enhance data visualization
- Integrated AWS services (S3, Lambda, SQS, ECS) and automated deployment pipelines using Docker, Kubernetes, and Jenkins, significantly improving system scalability.
- Implemented comprehensive testing strategies with Pytest, conducted code reviews using Git, and collaborated with cross-functional teams under agile methodologies to ensure robust, secure, and HIPAA-compliant software delivery.

Software Engineer   Aug 2022 - May 2024
Human Factors Lab | NSF   *Columbia, Missouri*
- Engineered a real-time platform using Python (Django) and React, integrating Microsoft HoloLens AR with Unity-based interactive experiences and Xsens Motion Capture SDKs. Deployed the application on AWS for enhanced scalability and reliability.
- Designed an **ML model** scoring system (0-100) to quantify user fatigue with 80% precision, with **Statistical analysis** in **AR** learning environments.
- Architected and maintained robust Python backend services to integrate multi-sensor inputs—enabling smooth AR scene transitions and reliable gesture interaction capabilities.

Associate Software Engineer   Aug 2020 - Dec 2021
Accenture Solutions | CVS health   *Chennai, India*
- Enhanced 5 key backend healthcare claims fraud detection applications by resolving 10+ user stories using Python frameworks and rigorous Pytest-based testing, achieving a 20% improvement in fraud detection accuracy.
- Developed an automated healthcare claims fraud detection system with Python-driven REST APIs, SQLAlchemy, and PostgreSQL, processing over 10K claims daily, increasing flagged fraudulent claims by 25%.
- Automated API key synchronization using Python's Boto3 library to fetch configurations directly from AWS Parameter Store, reducing manual workload by 85%
- Resolved 1000+ fraud detection system incidents with a 20-minute response time, enhancing system uptime by 15%.

Software Engineer   Jan 2019 - July 2020
Nxp Net Solutions | Cashify   *India*
- Implemented over 15 features, resolved 30+ bugs, and developed unit tests achieving 95% code coverage for containerized Python-based applications using Flask integrated with a Vue.js front end
- Collaborated in an agile environment, conducting 50+ code reviews and performing comprehensive unit testing.
- Contributed to CI/CD pipeline enhancements that accelerated deployment times by 35% and reduced system downtime by 15%, ensuring a more reliable and efficient software delivery process.

SKILLS

- **Programming & Frameworks**: Python 3+, Django, Flask, FastAPI, Pytest, Celery, Microservices, Kafka.
- **Web Technologies** : Django REST Framework, REST API, GraphQL, HTML5, CSS3, JavaScript.
- **Databases**: PostgreSQL, MySQL, MongoDB, SQLite, Redis, NoSQL, AWS RDS.
- **Developer Tools & OS:** Windows, Linux, Unix, Jira, Postman, Git, PyCharm, NetBeans, IntelliJ, Jupyter Notebook, Google Colab, VS Code
- **DevOps & Cloud Technologies** : AWS, Docker, GitHub, GitLab, Kubernetes, CI/CD.

PROJECTS

Snip-Master   July 2024 - current
- Developed a robust clipboard manager with dynamic slots and real-time updates using Python's **Tkinter** and **PIL**.
- Integrated AI-powered rephrase and rewrite features with a T5-based model (**Hugging Face**) and **OpenAI's GPT** to enhance text quality and streamline workflows.
- Built a modern GUI with customizable **hotkeys** and smooth interactions, powered by a modular, multi-threaded architecture.

Inventory Management System   Feb 2022 - May 2022
- Developed a comprehensive online inventory management system using AngularJS and Node.js, incorporating a secure login/register system, admin control panel, and robust inventory search functionality.
- Implemented features such as profile editing, real-time updates, requirement management, and feedback collection.

EDUCATION

University of Missouri, College of Engineering   Columbia, Missouri
   Master of Science in Computer Science   *May 2024*
CVR, College of Engineering   Hyderabad, India
   Bachelor of Technology in Electronic and Computer Engineering   *May 2020*

ACHIEVEMENTS

Honored with XRTG Best Student Paper Award 2024 for contributions to AR and motion capture research.