Unmukt Chauhan

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SUMMARY

Security-focused Software Engineer with a Master's in Computer Science (AI & Data Science specialization) and hands-on experience developing scalable, fault-tolerant systems. Passionate about protecting infrastructure at scale through automated detection and mitigation workflows. Skilled in backend engineering, data-driven security analytics, and full software development lifecycle (SDLC) within distributed, cloud-native environments.

EDUCATION

Master's in Computer Science (Specialization in AI and Data Science)
Dublin City University ⬈
Dublin, Ireland

Bachelor's Degree in Computer Science
Lingaya's Vidyapeeth
Delhi, India

Diploma in Computer Science
Lingaya's Vidyapeeth
Delhi, India

PROFESSIONAL EXPERIENCE

Memory Block ⬈
Software Engineer – Security Data & Automation
10/2024 – present | Dublin, Ireland
- Designed and implemented low-latency microservices to detect anomalies in real-time transactional logs and user behavior, reducing security response time by 50%.
- Built internal tools that automate the analysis and alerting of suspicious patterns using Python and AWS Lambda, integrated with a CI/CD deployment pipeline.
- Collaborated with policy and compliance teams to deliver audit-ready logging systems, aligning internal systems with GDPR and ISO standards.
- Enhanced observability by integrating Prometheus metrics and Grafana dashboards, enabling rapid incident diagnostics and post-mortems.

CSC e-Governance Services India Limited
Security Software Developer – Public Infrastructure
03/2020 – 04/2023 | Delhi, India
- Engineered and deployed APIs that continuously monitored authentication and access-control events across decentralized nodes.
- Built automated remediation scripts to quarantine compromised endpoints based on detection heuristics and behavior modeling.
- Participated in architectural reviews and contributed to system design improvements with a focus on fault tolerance and observability.
- Implemented secure communication between services using HTTPS, JWT, and service authentication layers.

Lingaya's Vidyapeeth
Cybersecurity Data Engineering Intern
08/2019 – 02/2020 | Delhi, India
- Prototyped a distributed intrusion detection system (IDS) using Kafka and Spark for event stream analysis, identifying threats across a university-wide network.
- Simulated threat models to improve defense mechanisms against port scanning, brute force attacks, and malicious IP requests.
- Collaborated with faculty on publishing a white paper on data-driven security modeling and stream-based defense systems.

PROJECTS

Analyzed sentiment of the 2020 US Presidential Election on Twitter
Tools Used: Python, Pandas, Logistic Regression, Naive Bayes, Random Forest, Gradient Boosting Machines, TF-IDF, CRISP-DM Framework

Implemented pathfinding analysis using A* algorithm in a 3D maze world
Tools Used: A Pathfinding Algorithm, Python*, JavaScript

Developed a Virtual Debate Moderator
Tools Used: OpenAI GPT-3.5 Turbo, JavaScript, HTML, CSS, jQuery, AJAX

Evaluated information retrieval techniques
Tools Used: Python, NLTK, Scikit-learn, BM25, Query Likelihood, Vector Space Model (VSM)

Created an image search engine
Tools Used: Flask, Python, Requests, Flask-ngrok, Pixabay API

Performed analysis of Deepfake Detection methods of Images using Face Forensics
Tools Used: Logistic Regression, SVM, Random Forest, CNN, LSTM, Celeb-DF (v2) Dataset

Implemented a multi-class classification model for Etsy to classify products
Tools Used: Python, Scikit-learn, Random Forest Classifier, CountVectorizer, TfidfTransformer

SKILLS

Technical Skills
- **Programming Languages:** Python, Java, SQL, JavaScript, R
- **Infrastructure & Cloud:** AWS, Docker, Kubernetes, Terraform
- **Big Data & Analytics:** Spark, Hive, Hadoop, Kafka, Airflow, Delta Lake
- **DevOps & SDLC Tools:** GitHub, Jenkins, Bitbucket, CI/CD workflows
- **Security Tools:** ELK Stack, Prometheus, Grafana, AWS GuardDuty (familiar)

Core Competencies
Scalable System Design • Low-Latency Architecture • Fault-Tolerant Engineering Security Monitoring • Threat Mitigation Automation • CI/CD & DevOps Practices Cross-Functional Collaboration • Full Software Development Lifecycle (SDLC)

Data Science & Machine Learning:
- Machine Learning
- Predictive Modeling
- Statistical Modeling
- Data Mining
- Data Analysis
- AI Model Development
- Data Preprocessing
- Data-Driven Decision Making

Soft Skills
- Leadership & Mentorship
- Analytical Thinking
- Decision-Making
- Problem-Solving
- Detail-Oriented
- Sustainability