Koushik PLN

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SUMMARY

Computer Science and Cybersecurity graduate seeking new opportunities in a challenging environment that fosters innovation and continuous learning. With over 3 years of experience in software development, cloud platforms (AWS, Azure), and DevOps, I have a proven track record in building scalable applications and automating workflows. As a Certified Ethical Hacker (CEHv11), I am also skilled in network security and penetration testing. Currently pursuing an MS in Cybersecurity, I am passionate about leveraging my technical expertise to contribute to cutting-edge projects in Software Development, DevOps, or Cybersecurity.

EDUCATION

The University of Tampa Tampa, Florida
MS in Cybersecurity *Jan 2024 - Present*
CGPA: 3.85/4.00

CMR College of Engineering and Technology Telangana, India
B.Tech in Computer Science and Engineering *June 2018 – July 2023*
CGPA: 3.78/4.00

WORK EXPERIENCE

Research and Teaching Assistant April 2024 – Present
The University of Tampa (On-campus Part-time) *Tampa, Florida*
- Conducting research on implementing blockchain protocols for 10+ device types, under the guidance of Professor Dr. Muhammad Al-Abdullah, achieving 30% improvement in device security and data integrity.
- Serving as a peer tutor for Statistics and Data Analysis, assisting 50+ students with research methods and statistical queries under the supervision of Professor Dr. Erfan Rezwani.
- Developed a Retrieval-Augmented Generation (RAG) language model to summarize interviews and creating knowledge base, under Dr. Chen Zhong
- Enabled automated responses to 10+ CISO interview questions, enhancing the understanding of information security interviews and podcasts by 40%.

Software Developer Jul. 2023 – Nov. 2023
CERO Smart Mobility *Hyderabad, India*
- Led the setup of development and deployment environments for a team of 10+ developers, streamlining project workflows and enhancing collaboration across teams.
- Developed and maintained a MEAN stack web app serving 1,000+ users, deployed on AWS EC2 and Google Firebase, ensuring secure data storage and efficient resource management for scalable performance.
- Integrated payment gateways (Stripe and Razorpay) to facilitate secure and seamless payment processing, enabling 500+ transactions monthly and reducing payment support inquiries by 20%.
- Implemented multi-factor authentication (MFA) with Twilio to improve security, reducing unauthorized access attempts by 60% and providing users with an added layer of account protection.
- Utilized Docker Swarm for orchestrating containerized services, ensuring 90% application uptime and reliable performance within an MVC-architected microservices framework.

Software Developer Jun. 2022 – Jun. 2023
Strato IT *Hyderabad, India*
- Contracted by ProTec, a South Korean electronics company, to develop an Integrated Development Environment (IDE) for programming IC processors, utilizing Java and Java Swing.
- Developed plugins in C# and C++ to extend IDE functionality, enabling customization and supporting 20+ advanced features as requested by the client.
- Restructured the architecture from MVC to MVVM, enhancing modularity and improving code maintainability by 40% to facilitate seamless plugin integration.
- Implemented significant UI enhancements using Java Swing, optimizing user interaction and accessibility across key IDE functionalities.
- Designed PostgreSQL database-level autosave features, reducing data loss risk by 70% during crashes, while applying secure coding practices to proactively identify and resolve vulnerabilities.

Associate Software Engineer Sept. 2021 – Jun. 2022

MAQ Software *Hyderabad, India*

- Contributed to a Microsoft project by replacing 50+ existing Azure Databricks scripts with Azure Synapse Notebooks, improving data processing efficiency by 30%.
- Focused on Azure Data Factory for data analytics and visualization using Power BI, collaborating with 3 cross-functional teams to resolve data discrepancies in reports, enhancing report accuracy by 25%.
- Developed a web application for client data analysis deployed on Azure Web Services, utilizing ASP.NET and ReactJS, which improved user engagement by 40%.
- Integrated Microsoft Authentication Library (MSAL) to enhance security within the web application, providing secure access for over 500 users.
- Identified and resolved 10+ critical vulnerabilities in the web application, significantly improving its security posture for 1000+ user.

PROJECTS & RESEARCH

Implementing Blockchain in IoT Security Aug. 2023 – Present

- This research aims to enhance IoT security by substituting traditional routers with blockchain network, it is based on an analysis of network-based attacks happening on IoT devices.
- My contribution to the research involved programming a port for the IoT device to accept Peer connections, utilizing Socket IO in the C language.

AUTO-MCP – IDE for IC Processors Jun. 2022 – Jun. 2023

- The IDE, developed primarily in Java and JavaSwing with MVVM architecture, so that it can support strong manual unit testing.
- Using MVVM also architecture helped in developing the plugins with C-sharp and C++ which have enhanced real-time performance of the application.
- Implemented PostgreSQL server integration within the IDE as an additional plugin to enhance data management and provide recovery options in case of a crash.

TECHNICAL SKILLS

Programming Languages: C, C++, C#, Java, Python, TypeScript
Frameworks and DevOps tools: Angular, React, Kubernetes, Docker, Jenkins
Cloud Platforms: AWS, Azure
Databases: MongoDB, MS SQL Server, MySQL
Operating System: Linux, Windows

ACHIEVEMENTS

- Certified Ethical Hacker (CEHv11) from EC-Council.
- Certified Network Security Specialist by ICSI (UK).
- HackerRank Certified Professional Python programmer.
- Top performer at CTF competition conducted by HAC Security.
- Qualified and organized Smart India Hackathon 2020 (Remote during COVID).
- Specialization in both Web Development and Web Security.