





# ANNUAL REPORT

2023-2024





## **HACK REVOLUTION** POWERED BY ACES

~ Mohammed Abdul Adil

On December 17, 2023, Muffakham Jah College of Engineering and Technology (MJCET) organized a 15-hour hackathon called "Hack Revolution" from 7 am to 10 pm in collaboration with the Computer Society of India (CSI) and the Entrepreneurship Cell (E-cell), aiming to foster collaboration and inventive thinking, creating an environment that facilitates the hands-on application of diverse skills.

The sponsor for this grand event was Advance Communication and Electronic Systems (ACES), an international digital-neutral infrastructure company.



The hackathon consisted of four tracks: Healthcare, Fin-tech, Generic Software, and Generic Hardware. Each track offered a cash prize of Rs 75,000/-, contributing to a total pool prize of Rs 300,000/-. A total of 153 teams from different colleges of Telangana participated in phase 1 of which the best 60 teams were selected and invited to phase 2 where the participants would transform their innovative ideas into working models. Key elements like originality, inventiveness, social impact, and viability were evaluated during the thorough screening process of all entries Reviews were being conducted at regular intervals by a judging panel composed of industry experts and academicians.



The prize distribution ceremony commenced around 9 pm, featuring the distribution of cash prizes to the winning teams. The event was attended Mr. bν Mohammed Mazher. N. Managing Director of ACES India. and Ferhatullah Hussainv, Professor, and Dean of MJCET.

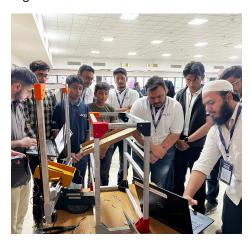


The winners of the "Hack Revolution" are as follows:

S.NO	Track Name	Winner Name	Project Title	College
1		Team Hex Tech	Deep fake detection	MJCET, CBIT, Lords
2	Generic Software	Clutch Monkeys	Zero Day attack detention system	KMIT
3		SLATE	Smart learning and teaching environment	MJCET
4		Team Robocon MJCET	Wall-E	MJCET
5	Generic Hardware	1. Ababeil 2. Team Robotics MJCET	1. Sea Port Surveillance Drone 2.Quadcopter with Robotic arm	MJCET
6		Touch vision	E-braille	MJCET
7	-: - 1	Bitbounty Hunters	ARBISTATE	MJCET
8	FinTech	Digital Titans	DripFin	MJCET
9		Hexa Hive	Money Manager	MJCET
10		Algorithm Assassin	Bio insights	MJCET
11	HealthCare	LightHeads	Computerized cognitive retraining program for home training of children with disabilities	MLRIT, MJCET
12		Alphas	Medi Link	MJCET



The event would not have been possible without Ferhatullah Hussainy, Professor and Dean of MJCET, Md. Zainuddin Naveed, Assistant Professor of CSE at MJCET, Dr. Syed Shabbeer Ahmad, Head of CSED at MJCET, Dr. Arifuddin Sohel, Head of Research and Development at ACES India, and Dr. Md Abdul Raheem, Assistant Professor at MJCET. Their guidance and expertise played a crucial role in the event's successful organization.



A sincere acknowledgment is extended to the esteemed student leads who, alongside the faculty members, were instrumental in orchestratina hackathon. The CSI team, led by Syed Maaz Ahmed, Ahmed Khan, and Mehveen Fatima, as Chief Coordinators of CSI-MJCET, demonstrated exemplary leadership. Additionally, Abdul Basith, Chief Coordinator of E-CELL MJCET, and Chief Syed Shujaduddin, Deputy Coordinator of E-CELL MJCET, played a crucial role in the event's organization and execution

This collaborative effort, encompassing the dedication of faculty members, student leads, coordinators from various teams and volunteers of different portfolios culminated in the successful conduct of the hackathon.

#### STACKSPRINT: A WEB DEVELOPMENT ADVENTURE

~ Mohammed Ahmed Hussain



Computer Society of India MJCET and E-Cell MJCET organized their first pre-hackathon workshop named "StackSprint: development adventure" which was a two-day workshop which was held on the 10th and 11th of November, Friday, and Saturday at CIC Lab from 9:30 am to 4 pm. This workshop was intended to provide an in-depth knowledge Development.

The workshop proved to be an insightful one for the 70+ attendees and offered them an opportunity to have a gateway into web development.



Also, this two-day workshop presented an opportunity for the students to enroll themselves in different certificate courses around the world making them capable of handling every field in the corporate world. The event commenced with an opening address by Syed Maaz Ahmed, who introduced the distinguished speaker, Mr. Syed Zohaib, a Software Engineer at Apple. The session kicked off with an in-depth exploration of HTML, spanning from 9:30 am to 12:00 pm. Participants were immersed in the fundamentals of HTML, setting the stage for a comprehensive understanding of web development.



Following the HTML introduction, the focus shifted to Cascading Style Sheets (CSS) and Bootstrap. Attendees gained insights into the significance of CSS in web design and were introduced to the powerful features of Bootstrap. The latter half of the session featured an engaging quiz, testing participants' comprehension of the topics covered, with cash prizes awarded to the 1st and 2nd place winners. The learning journey continued with an in-depth exploration of Bootstrap, further elucidating its functionalities. The session seamlessly transitioned into practical applications by explaining the integration of CSS in website development.

JavaScript took center stage, with a detailed discussion on key concepts such as the differences between 'let,' const,' and 'var,' and the manipulation of objects and arrays. The exploration of the Document Object Model (DOM) provided participants with essential insights into dynamic web page manipulation. The hands-on approach continued with the utilization of an API for movies, showcasing the creation of a dynamic movie app.



Participants actively engaged in the process of retrieving and displaying a list of movies, demonstrating the practical application of their newfound knowledge. As the session drew to a close, anticipation grew with the announcement of open registrations for a Hackathon, inviting participants to apply their skills in a real-world scenario. The event concluded with the exciting showcase of the website developed during the session and the audience's introduction to Hack Revolution's Timeline, Rules and Regulations and Registration process.



#### FLUTTERFIESTA: A JOURNEY INTO APP **DEVELOPMENT WITH FLUTTER**

- Shakaib Ahmed Mohammed

Computer Society of India (CSI) in collaboration with Ecell MJCET has culminated in resounding success of the FlutterFiesta Workshop held on November 18, 2023, at the CIC Lab, block 2, from 9:30 am to 4:00 pm. With an open invitation to students across all academic years, our comprehensive marketing campaign, spanning both online and offline channels, drew eager participants. For non-members, the entry fee stood at Rs 50, while CSI and E-cell members enjoyed complimentary access which led to 100+ registrations.





overwhelming enthusiasm from students reflected the event's inclusive providing nature, hands-on experience that equipped them with profound insights into Flutter. This workshop promised to fortify their understanding and skill set. fostering an environment ripe for enhancing their performance in the upcoming Hack Revolution 2023.

The event began with a warm introduction by the chief coordinator of CSI Syed Maaz Ahmed and led by Mohammed Mohsin, the esteemed Lead Mobile Engineer at Cattleguru and Co-founder of Snapseva, who graced the event as the keynote speaker, infusing it with expertise and inspiration. Throughout the worlshop, students embarked on a transformative learning journey, where the speaker delved into the intricacies of Introduction to Dart, including topics such as variables, data types, functions, loops, lists, maps, and Object-Oriented Programming concepts.

Transitioning to practical considerations, the discourse expanded to encompass the customization of versatile widgets, UI development, and an in-depth exploration of concepts such as Munch Alert!, various widget types, Rest APIs, Sync vs Async, and Futures.



addition these In to technical components, the session extended its scope to include broader thematic areas. These encompassed subjects like branding, concept design, brand identity, project portfolio, and diverse elements pertinent to social media and websites.

This multifaceted approach provided a A fun quiz was also organized for the comprehensive understanding, making the presentation valuable for a holistic perspective on App Development and applications. This enriching experience empowered students with practical skills and knowledge, poised to fuel their journey in the ever-evolving landscape of technology.



young audience. They engaged with enthusiasm and raced against the clock to get their hands on the winning prize. event was concluded announcing the winners of the guiz & with a vote of thanks Mohammed Ahmed Khan the Chief coordinator of CSL

### **DATAFORGE FUSION - A DATA ENGINEERING** AND ANALYSIS WORKSHOP

~ Rania Mehreen Faroog

Computer Society of India (CSI-MJCET) and E-CELL MJCET successfully conducted their third pre-hackathon workshop collaboration with the Computer Science and Engineering Department. The hands-on workshop titled DataForge Fusion - A-Data Engineering and Analysis Workshop took place on 25th November 2023 at CIC Lab, Block 2 MJCET, from 11:00 AM - 4:30 PM. With an impressive attendance of over 60+, the workshop provided an ideal starting point for students embarking on their journey to learning about the currency of today's world - Data.



The workshop commenced with an introduction to Machine Learning by the Tech Captain at CSI - MJCET, Abdul Mannan. The audience was introduced to the basic concepts of machine learning, its applications, and its types.



This was followed by a brief explanation of an ML Model utilizing the sci-kit-learn library in Python to instill enthusiasm among the audience. The next segment of the workshop was led by Mohammed Abdul Basith, Chief Technology Office at E-CELL MJCET. In this part of the workshop, the basics of Python were covered, including data types, operators, control statements, loops, functions, and Python libraries like NumPy, Pandas, and Matplotlib.

After lunch, the subsequent segment of the workshop was led by the guest speaker, Mohammed **Imaduddin** Senior Cloud Engineer at PwC Australia. In this part of the workshop, participants learned the intricacies of data analysis. The project developed during this session focused on creating a house price prediction model.

The session began with instructions on how download datasets from the popular platform Kaggle. Various Python libraries such as seaborn, sci-kit-learn, pandas, and matplotlib were utilized. The students were guided through the process of reading and analyzing data, handling null values by replacing them with mean values, converting string data to numeric data, and conducting data preprocessing.

The session also covered the extraction of patterns from preprocessed data. The speaker introduced the concept of linear regression, demonstrating how aids in assessing effectiveness of data training.





The speaker shared invaluable insights on excelling in the hackathon, igniting enthusiasm among the audience to actively participate. Following the insightful workshop sessions, participants were challenged with an engaging quiz designed to evaluate their knowledge. Winners were rewarded with exciting cash prizes, adding an element of excitement to the learning experience.

The workshop concluded as Ahmed Khan, Chief Coordinator of CSI MJCET, took the showcase opportunity to the Website: hackrevolution.in and motivated the audience to actively participate in the upcoming hackathon.



#### **GAME DEV360** UNITY-POWERED GAME DEVELOPMENT EXPERIENCE

~ Mohammed Omer



On January 20, 2024, the Computer Society of India (CSI) hosted the GameDev 360 Workshop at the CIC Lab, Block 2, from 9:30 AM to 4:00 PM. The event was a symphony of creativity and knowledge. The event, which drew an enthusiastic audience of 70-80 people, sought to offer a hands-on exploration of Unity game development. The workshop welcomed CSL members with complimentary access, while nonmembers availed themselves of this enriching experience.

Mr. Shahbaaz Khan, a renowned game developer and Hack Revolution 2022 winner who currently provides his expertise to MAI Labs, was the day's featured speaker. Mr. Khan skillfully guided the audience through the complex world of Unitypowered game development with a wise combination of humor and insight.

The workshop's primary objective was to unveil the capabilities of Unity, the engine that powers popular games like Pokémon Go, Super Mario Run, and Monument Valley. Beyond the details, the event aimed to highlight the value of discipline and passion in this dynamic field of game development by bridging the gap between the academic and practical domains.

Throughout the day, participants were immersed in a comprehensive exploration development of game essentials. Mr. Khan talked about the foundations, how to get started with Unity projects in a practical way, and the nuances components, of objectprogramming, oriented and Unityspecific knowledge.





One of the most notable highlights was Mr. Khan's live demonstration of how to create a game using Unity. Participants were able to see firsthand how theoretical information seamlessly was incorporated into an exciting, dynamic experience gaming through this practical application



In conclusion, participants gained a thorough understanding of Unity game development thanks to Mr. Shahbaaz Khan's perceptive and entertaining style. In addition to giving participants useful skills, this enlightening experience promoted a comprehensive viewpoint on game development and its applications. As participants leave the event, they are poised to navigate the dynamic landscape of technology with confidence. The Chief Coordinator, Syed Maaz Ahmed, concluded the workshop with a Vote of Thanks.

#### **CSI TECH EXPO 2024**

Rehmath Unnisa

The CSI Tech Expo 2024 was a showcase of innovative projects and ideas from students of the MUFFAKAM JAH COLLEGE OF ENGINEERING AND TECHNOLOGY. Held on February 24, 2024, from 11:00 AM to 1:00 PM at the Computer Centre, Block 2, Lab 3,4, this event provided an excellent opportunity for students to present their work, compete for exciting prizes, and network with peers and industry professionals. The highlights of the Events were that Participants had a chance to win exciting prizes for their innovative projects and presentations, Attendees could explore a variety of projects spanning multiple domains including App Development, Web Development, Artificial Intelligence, Machine Learning, and more. Students competed in different categories, showcasing their skills and innovative solutions. The expo offered a platform for students to network with their peers, faculty, and industry professionals.







Project Name	Team Lead	Branch	Description
Rescue Mate	Taufeeq Noamaan	CSE, Year III	A disaster management app designed to assist in rescue operations.
PackMyScrap	Aaqil Baig	IT, Year II	A user-friendly website that connects individuals, businesses, and communities to streamline the process of reducing and recycling waste and scrap.
Fake News Classification	Mohammed Abdul Mannan	CSE, Year II & IV	An Al model to identify fake news and deepfake videos/images.
Social Media Ad Predictor	Mohammed Ibrahim Nasir	CSE & Mech, Year III & IV	An ML model to predict whether a person is likely to purchase an item or product based on advertisements.
ChatHub	Mohammed Azim Moula	CSE, IT, AI&DS, Year I & II	A chat application developed using Flutter and the Stream Chat API.
Blogging Website	Mohammed Shafaat Hussain	CSE, Year III	A blogging platform that allows users to write and share their thoughts with a simple and user-friendly interface.
Sentiment Analysis of YouTube Comments	Mohammed Abrar Akram Farooque	CSE, Year II	An application that analyzes YouTube comments to categorize them as positive or negative using the Naive Bayes algorithm.
Chat App	Syed Kashif	CSE, Year II & III	A MERN stack chatting web app allowing users to message anyone on the platform.





Nova	Habeeb Saleh	CSE, Year III	A social media app developed using Flutter and Firebase.
Todo App	Abdullah Hussain Shaikh	CSE, IT, AI&DS, Year I, II & III	A task management app developed using Flutter for UI and Firebase for user authentication.
Hospital Management	T. Mohd Abdul Rehman	CSE, Year III	A web-based project allowing users to book hospital appointments, developed using the MERN stack.
Flappy Bird	Mariya Hussain	CSE, Year II	A basic web development project replicating the popular Flappy Bird game.
ВООМ	Muhammad Affan Asif	CSE, Year I & II	A Zoom clone developed both as an app and a web application.
Frontend for an ML Model	Mohammed Samiuddin	CSE, Year I	A frontend framework using HTML and CSS for an ML model.
Cyber Safe	Shakaib Ahmed Mohammed	CSE, Year III	Cyberbullying detection using ensemble learning.
DrowsyDetect	Shakaib Ahmed Mohammed	CSE, Year III	Drowsiness detection using TensorFlow and OpenCV.



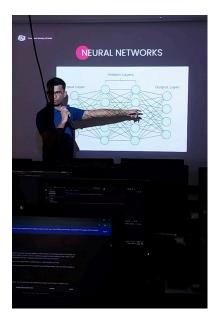
The projects were evaluated by a panel of esteemed faculty members who meticulously observed and analyzed each project. Their judgment was based on several criteria, including the innovation of the idea, implementation, technical complexity, and overall presentation. The faculty's expertise and keen insights ensured a fair and thorough evaluation process. The CSI Tech Expo 2024 was a resounding success, showcasing the incredible talent and creativity of the students. The event not only highlighted an individual's technical skills but also fostered a spirit of innovation and collaboration.

## AI-FINITY: A HANDS-ON WORKSHOP ON GEN-AI AND RAG

~ Mohammed Omer

On July 3, 2024, the Computer Society of India (CSI) held the Al-Finity workshop at MJCET, from 9:00 AM to 5:00 PM. The event focused on Generative (GEN-AI) and ΑI Retrieval-Augmented Generation (RAG), attracting many participants eager to learn about the latest in Al technology.

The workshop was led by Mr. Taufeeq Noamaan, Tech Captain of CSI-MJCET, and Mr. Hisham Saeed, Tech Head of CSI-MJCET. Both speakers are experienced professionals, currently working as interns at Velora AI and serving as Microsoft Learn Student Ambassadors, Mr. Noamaan and Mr. Saeed started with an introduction to AI and explained why Python is widely used in AI development. They discussed Python's flexibility, large library support, and community help, which make it a good choice for Al projects.

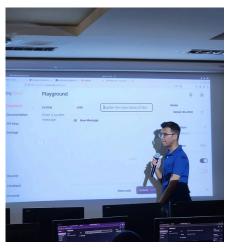


The speakers then explained different AI concepts, such as neural networks, the differences between machine learning and deep learning, and generative adversarial networks (GANs). They provided clear and simple explanations to help everyone understand these technologies. A key part of the workshop was about Large Language Models (LLMs). The speakers discussed how LLMs are used in deep learning and natural language processing. They showed examples of open-source and proprietary models like Google Lemma and Meta LLAMA, explaining how these models work and their benefits.



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The main highlight of the event was the hands-on session on Retrieval-Augmented (RAG). Participants learned Generation about the processes of RAG, including how to index, retrieve, and generate data. They practiced using important tools and libraries LangChain, HuggingFace, like LlamaIndex. The session also covered the differences between streaming and static data and how to use libraries such as OS, PyPdf2, and GoogleGenAi. Mr. Noamaan and Mr. Saeed conducted live coding sessions, showing participants how to develop AI projects.



These sessions helped participants apply the theory they learned practically. The interactive format allowed participants to ask questions and get immediate feedback.



conclusion. the Al-Finity workshop was a great success, providing valuable insights into GEN-AI and RAG. Participants gained practical skills and a better understanding of technologies. As the workshop ended, the Chief Coordinator, Syed Maaz Ahmed, thanked everyone for attending closed the event with a Vote of Thanks.



#### **TECH TALK**

~ Maheeya Wajahat

On May 26, 2024, CSI held a virtual Tech Talk with Mr. Hashmath Rehman, a QA Engineer at Ivanti with over 20 years in security. The event, conducted via Google Meet, focused on enterprise technology and security solutions.

Mr. Rehman began by outlining his career, including roles at Cisco, Virtusa, and NXP. He shared his experience in quality assurance, professional services, customer support, IT & systems, pre-sales, and engineering.

He emphasized the importance of code analysis and quality assurance in enhancing security, explaining how maintaining code quality prevents vulnerabilities and boosts system integrity. Mr. Rehman discussed software development methodologies like Waterfall, Agile, and DevOps, providing real-world examples of effective enterprise security strategies, including the protection of on-premises infrastructure, mobile devices, and cloud resources. He highlighted the importance of endpoint device management, patch management, and the use of security software like anti-virus and anti-malware.

The session ended with a Q&A segment where participants asked questions and gained more insights. The event was well-received, with attendees appreciating the detailed coverage of enterprise technology and secure solutions.

In conclusion, the CSI Tech Talk offered valuable insights into enterprise technology and security. Attendees left with a better understanding of code quality, security management, and Al's role in enterprise security. Mr. Syed Maaz Ahmed, the Chief Coordinator, thanked Mr. Rehman for his informative presentation and the participants for their engagement, concluding a successful session.

## THE ENGINEER'S JOURNEY

~ Ibrahim Khan

On July 4, 2024, the Computer Society of India (CSI) organized a session at MJCET focused on pursuing a master's degree in the United States. The session, titled "The Engineer's Journey," was conducted by Shoaib Momin, a Solution Architect at IBM USA, and Syed Maaz Ahmed, the Chief Coordinator of the CSI Club and a Microsoft Learn Student Ambassador, It covered essential topics for students, such as the challenges of studying abroad, the value of a master's degree, and practical steps for achieving this goal.





Key challenges discussed by Shoaib Momin included adapting to a different culture, managing household work, building a new social circle, and handling high education costs. He also highlighted the benefits of a master's degree, such as practical learning, increased earning potential, advanced knowledge, and career advancement opportunities. Shabbeer Sir, the Head of the Department (HOD), felicitated Shoaib Momin during the event.



Syed Maaz Ahmed also contributed by discussing the importance of GPA, networking, research and contributions. He emphasized creating a strong profile with a high compelling Letters of Recommendation (LOR's) and Purpose (SOP's), Statements of practical projects, and notable achievements.

The session emphasized the US as a preferred destination due to top universities, cutting-edge curricula, abundant research opportunities, exposure to a global student body, and strong networking prospects. Guidance on selecting the right university involved considering factors like location, cost, research opportunities, ranking, and alumni network, aligning these with personal and career goals. Practical steps detailed included exam preparation (GRE, IELTS, TOEFL), maintaining high academic performance, writing compelling SOPs, obtaining strong LORs, and timely application submissions.

Visa and work authorization processes were covered, including understanding student visas and work options like OPT and HIB visas. Insights on the importance of GPA for scholarships and internships, advice for building skills and networking during undergraduate studies, and yearly breakdown of activities from self-learning and internships to preparing for placements and postgraduate exams were provided. Postbachelor's options discussed included pursuing graduate studies (MS, MBA, ME, MTech, PhD), seeking job opportunities, or starting a business.





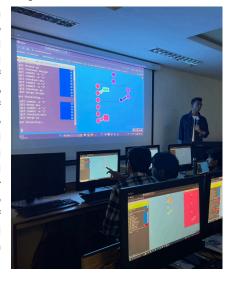
The application timeline for Fall 2025 was outlined, starting in June/July, with final decisions by October/November, and visa applications by early 2025, aiming to complete preparations by May-August. The session concluded with advice on maintaining a high GPA, gaining practical experience, and preparing for a successful application process, providing a thorough roadmap for engineering students aspiring to pursue a master's degree in the US.

## **GIT FOR GEEKS WORKSHOP:** INTRODUCTION TO GITHUB AND **OPEN SOURCE**

~ Shakaib Ahmed Mohammed

The "Git for Geeks" workshop, organized by the Computer Society of India (CSI) at MJCET, was held on July 20, 2024, at the CIC Lab, Block 2. The event aimed to introduce participants to the world of GitHub and open-source development, offering a comprehensive session covering both basic and advanced GitHub workflows. The event was free of charge and included swags and participation certificates for all attendees. The workshop was promoted through a robust marketing campaign across various online and offline channels, drawing significant interest from students and tech enthusiasts. The event was open to all, targeting students new to Git and GitHub, aspiring open-source contributors, future developers, and tech enthusiasts. This inclusive approach resulted in a high turnout, demonstrating the community's eagerness to engage with open-source technologies.

The event commenced with a warm welcome from Mr. Abdul Rasheed, Associate Chief Coordinator of CSI, who introduced the first speaker, Mr. Taufeeq Noamaan, a GitHub Campus Expert and Tech Captain of CSI. His session, which ran from 10:00 AM to 1:00 PM, provided an in-depth overview of version control systems and fundamental concepts of Git. He guided participants through the process of using Jekyll for static site development and discussed the steps and best practices for deploying sites on GitHub Pages. The session also covered the automation of workflows with GitHub Actions and offered valuable tips and strategies for building an effective GitHub profile.





After a lunch break, the workshop resumed with a session led by Mr. Afnan Abdul Vasay, a GitHub Campus Expert from Lords Institute of Engineering & Technology, from 2:00 PM to 3:30 PM. His session provided valuable insights into various aspects of opensource development. He discussed the steps and tips for contributing to open-source projects and strategies to build confidence in open-source contribution. He also covered how to effectively create issues and pull requests, assign code reviews, and the best practices for branching and merging. Additionally, he explained the process and benefits of becoming a GitHub Campus Expert and provided an overview of the tools and benefits included in the GitHub Student Developer Pack.





The event concluded with a quiz session covering the topics discussed throughout the day. This interactive segment helped reinforce the knowledge gained and ensured participants left with a solid understanding of GitHub and open-source workflows. Dr. Maniza Hijab, Associate Professor & Associate Head of the Computer Science Department, presented mementos to the speakers in appreciation of their contributions. The event wrapped up with a vote of thanks by Syed Maaz Ahmed, Chief Coordinator of CSI, followed by the distribution of GitHub swags and participation certificates to all attendees. The success of the workshop was attributed to the diligent efforts of the volunteers who assisted in organizing and ensuring the event ran smoothly. Participants expressed their gratitude and excitement, highlighting the workshop's value in enhancing their technical skills and knowledge of open-source development.

#### **EDITORIAL TEAM**

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