AMAN KUMAR SAH

2nd Year Computer Science Student (Placement)

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Skill Summary

- **Developed an AI-powered accessibility app** for the **Eli Lilly Hackathon**, utilizing **data-driven insights** and **user experience research** to enhance accessibility, problem-solving, and **optimization in fast-paced development environments**.
- **Developed, and optimized scalable applications** using **Agile, GitHub, and version control**, ensuring efficient **debugging, and collaboration** while focusing on **performance, security, and maintainability** in software solutions.
- **Proficient in Java, Python, SQL, and PHP**, applying **OOP, REST API integration, and debugging** in projects like **Hospital Management System** and **Easy Karyalayas**, ensuring secure, scalable, and efficient software solutions.
- Skilled in **Git, GitHub, and Trello, following SCRUM methodologies, sprint planning, and iterative development to manage code repositories,** collaboration, and continuous integration workflows, ensuring **seamless coordination.**
- **Experienced in AWS, GCP, and MySQL**, implementing **cloud computing solutions, security best practices, and data optimization** to ensure **scalable, secure, and high-performance applications** for academic and real-world projects.
- Knowledgeable in **network protocols,** distributed systems, **and cybersecurity, ensuring data integrity, threat mitigation,** and **firewall manageme** for secure enterprise-level system design and implementation.
- **Conducted code reviews, identified security vulnerabilities, and optimized system performance Herald Development Platform**, ensuring **secure coding practices, threat mitigation, and network security compliance** through **peer reviews, debugging, and** performance optimization **to enhance software reliability and maintainability**.

Education

Sep 2023 – Jun 2027   **BSc (Hons) Computer Science (Artificial Intelligence)** Brunel University, London
(Predicted 2:1 class)

Second Year	**(Key Modules) First year**
Software Development and Management	Group Project (A-)
Algorithm and their Applications	Introductory Programming (B)
Networks and Operating Systems	Information Systems and Organisations (B-)

Sep 2022 – Dec 2023   **Diploma in (Computer Application)** IT Plus Computer Training Center, Harion
Courses:

-Windows System Administration	-Database Management & Security	-Network Security Fundamentals
-Access Control Management	-Data Organization in SQL	

Sep 2020 – Aug 2022   **+2 in Computer Science (A Level equivalent)** National School of Sciences, Kathmandu
Key Modules:

Physics (B)	Mathematics (B)	English(A)
Computer Science (B+)	Chemistry(B+)	

Relevant Experience

Dec 2022 – Sep 2023   **Research & Development Analyst**   **Herald Development Platform**

- **Developed a fundamental understanding of security solutions**, researching **firewall configurations, network security protocols, and threat mitigation** to enhance **enterprise security** and align with **cybersecurity best practices**.
- **Worked alongside engineers in Agile teams**, managing **Git repositories, version control, and operational troubleshooting**, ensuring **software maintenance, and cybersecurity compliance** in **highly scalable environments**.
- **Managed Git repositories,** tracked code changes, maintained version control, and enabled **seamless collaboration** between developers, ensuring efficient code integration, **review processes, and repository organisation.**
- **Performed system monitoring and security assessments**, identifying **potential vulnerabilities, optimizing cloud security and implementing best practices** to mitigate **cyber threats and ensure compliance with industry standards**.
- Managed project workflows using Agile methodologies, GitHub, and Trello. **Key Projects:**

Herald College App

- **Developed and optimised** the Herald College App, improving **system efficiency, debugging performance issues, and enhancing user experience** through **data-driven analysis, iterative development, and structured problem-solving.**
- **Collaborated with engineers, analysts, and stakeholders**, ensuring **code quality, technical feasibility, and project alignment** while following **SCRUM methodologies for structured development cycles, incremental updates, and timely delivery of app enhancements**.

Technical Project Work

Arduino Bluetooth Controlled Car ([Personal Project](#))

- **Programmed a Bluetooth-controlled car** using **Arduino IDE**, integrating **ultrasonic sensors** for **obstacle detection** and **real-time control**, enhancing automation and responsiveness
- Conducted iterative testing to optimise hardware-software integration, improving system reliability and performance.
- Applied problem-solving skills, showcasing technical proficiency in automation and real-world application development.

Hospital Management System (Academic Project)

- Designed and developed a centralised record management system in Java, utilising Visual Paradigm for system flowcharts to streamline hospital operations, data management, and workflow automation, improving efficiency and accessibility.
- **Analyzed and structured data using Power BI and Excel**, enhancing **system functionality, data reliability, and decision-making accuracy** through **statistical analysis,** performance evaluation, **and optimisation of data storage solutions**.
- Implemented **version control with GitHub** and applied **SCRUM methodologies**, managing **project milestones.**

Website Development Project: ([Easy Karyalayas](#))

- Developed a scalable, secure website featuring user authentication, payment systems, and analytics. Used **PHP**, **MySQL**, and responsive design principles, showcasing backend integration, system efficiency, and problem-solving skills.
- Deployed the Easy Karyalayas website on a secure server, ensuring scalability, smooth functionality, and reliable access.

Hackathons & Competitions

November 2024   **Eli Lilly Hackathon**

- Competed as a finalist in an Eli Lilly hackathon, a world-class company renowned in pharmaceutical and environmental innovation. Developed a prototype and presented an application designed and focused to assist people with disabilities.
- Effectively presented the **application architecture, threat mitigation strategies, and security protocols** to judges, demonstrating **technical communication and problem-solving skills.**
- **Implemented Web3 technologies, secure API integration, and encryption protocols** to strengthen **data privacy, authentication, access control**, **communication, integrity, and compliance** in the **developed accessibility solution**.

October 2024   **2024 ICPC UK & Ireland Programming Contest**

- Competed in a high-pressure environment to solve complex algorithmic problems collaboratively.
- Utilized advanced **Java** programming skills to develop optimised solutions within strict deadlines, fostering enhanced problem-solving capabilities and teamwork in a high-pressure, competitive setting.

Volunteering

May 2023   **GenMate Initiative with AIESEC**

- Delivered sessions on **internet safety** and **responsible digital usage**, translating technical concepts for non-technical audiences, addressing knowledge gaps, and enhancing awareness and understanding.

Additional Qualification

Aug 2023   **Rebuild Robotics**   **Robotics DevFest 2023. Kathmandu**

- Actively participated in a debate **and robot build competition** focused on **artificial intelligence**, demonstrating effective **communication**, critical thinking, and **collaborative problem-solving skills** in a **competitive environment**.
- **Engaged in technical discussions on AI-driven robotics and cybersecurity**, focusing on **secure system design, algorithm optimization, and real-time automation** in high-performance robotic systems.

Part-time Employment

Feb 2024 - Present   **Customer Service Assistant**   **Moto Hospitality, Winchester**

- **Collaborated with cross-functional teams**, optimizing **service operations, identifying inefficiencies, and implementing process improvements** to enhance **system performance, user experience, and overall business functionality**.
- **Provided technical troubleshooting support**, ensuring **secure payment processing, system reliability, and operational efficiency** while resolving **customer issues and minimizing downtime** in a **fast-paced, high-traffic retail environment**.

Courses

Intermediate   **Cloud Computing: Core Concepts**   **LinkedIn Learning**

- Gained foundational knowledge in cloud service models, deployment strategies, and technologies for managing scalable, enterprise-level cloud-based infrastructure, enhancing understanding of managing complex technical systems.

Achievements

- Completed intensive training in project management, strategic planning, and workflow optimization, applying problem-solving methodologies and structured decision-making in high-impact, technology-driven projects.