# Kausshik Manojkumar

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### Education

Iowa State UniversityExpected: May 2025Bachelor of Science in Computer Science, Minor in MathematicsGPA: 3.95Online Coursework in Progress: Machine Learning Specialization, Stanford University OnlineExpected: Oct 2023

## **Work Experience**

### Software Engineering Intern, Collins Aerospace – Cedar Rapids, IA

May 2023 – Present

- Executed high-level and low-level tests in an Agile environment, enhancing software reliability and ensuring strict adherence to specified requirements. Conducted regression tests to validate software stability
- Translated high-level and low-level requirements into efficient, structured code to align with project objectives and meet client specifications
- Formulated and refined test cases, leading to a more efficient testing process. Proactively identified and mitigated security risks within test procedures

### IT Technician, Iowa State University - Ames, IA

Aug 2022 - May 2023

- Cleared long-standing IT tickets by leveraging advanced computer programming skills, particularly in JavaScript, to develop automated solutions, enhanced efficiency, and reduced related issues by 90%
- Provided technical support for software issues, ensuring minimal downtime and optimal user experience

# **Projects**

### **SwipeHire Android Application**

Jan 2023 – May 2023

- Utilized Spring Boot, Maven, Hibernate, and MySQL to develop CRUDL operations and REST APIs, while integrating WebSocket for real-time features and Swagger for API documentation, thereby offering an all-inclusive platform for efficient hiring management
- Established CI/CD pipelines, automating code deployment to ensure rapid iterations and updates
- Collaborated closely with front-end developers to ensure seamless communication and alignment between components. Led technical troubleshooting efforts, addressing challenges and reducing downtime by 25%
- Conducted code reviews, enforcing best practices, and maintaining a high standard of code quality

## **Personal Portfolio**

July 2023 - Aug 2023

- Designed and developed a responsive personal portfolio website using HTML, CSS, and JavaScript to showcase my projects and skills. Utilized modern web design practices and frameworks to ensure an engaging user experience
- Deployed the website using AWS technologies: utilized AWS S3 Buckets for scalable storage and AWS CloudFront for content delivery to ensure fast loading times and global accessibility

#### **Brain Tumor Classification**

Aug 2023 - Sep 2023

- Engineered a data preprocessing pipeline for over 3000+ MRI images, ensuring optimal model training conditions, and implemented TensorFlow/Keras to develop a convolutional neural network (CNN)
- Leveraged transfer learning with EfficientNet pre-trained on ImageNet, resulting in a 30% enhancement in model accuracy compared to baseline models. Utilized TensorBoard for hyperparameter tuning and performance insights
- Achieved an impressive 97% accuracy on the test set; rigorously validated the model's efficiency using real-world medical data from multiple patients, including practical cases, with an accuracy of 90%
- Crafted an interactive UI using IPython widgets for real-time image classification, facilitating medical applications

#### Skills

Programming Languages: Python, Java, C, C++, JavaScript, SQL, Verilog, Bash

OS: Linux, macOS, Windows

Frameworks: HTML5, CSS, Spring Boot, Node.JS, ReactJS, TensorFlow, Sklearn, OpenCV, NumPy, Matplotlib, Pandas, ROS

Version Control: Git, Gitlab Databases: MySQL, Microsoft Excel Platforms: AWS

### **Extra Curricular Activities**

National Talent Search Examination Scholar 2019: Placed in the top 2000 out of 1.5 million students across India Delegate for India, Royal Commonwealth Society's India-Malaysia Student Exchange on Sustainable Development Goals