Udhayaranjani Sellappagounder Mohan

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Education

Dalhousie University *Jan 2021 - Dec 2024*
Bachelor of Computer Science Halifax, NS

Work Experience

Research Assistant - Wordpress *Jun 2024 – Present*
Dalhousie University Halifax, NS
- Led a team to re-create the course glossary for Brightspace in WordPress, standardizing styles with CSS/HTML and implementing Solarized color schemes for consistency.
- Managed image insertion with proper credits, set up expandable content for references, and ensured accurate, maintainable updates to glossary entries.

Computer Vision and Machine Learning Intern *May – August 2024*
Orangead Montreal, Quebec
- Converted a pretrained model to CoreML and created an API for image-based POST requests, enabling iOS deployment.
- Developed servers for distinct outputs, including crowd count and YOLO object detection, ensuring specialized processing.
- Trained a 98% accurate classifier to reroute images and created a system control file for continuous server operation.

Computer Vision and Machine Learning Intern *May 2023 – Jan 2024*
Orangead Montreal, Quebec
- Mastered Amazon Web Services tools (Sagemaker, S3), Python, and Jupyter Notebook for machine learning model implementation.
- Converted a model to CoreML with 90% accuracy and established a workflow for the project.
- Configured Virtual Machine hardware and trained a crowd counting model using the Shanghai dataset, converting it from PyTorch to CoreML.
- Addressed security challenges by setting up a secure access tunnel for VM model training.

Projects

Full Stack Web Development | JavaScript, Node.js, React, SQL, MongoDB, Flask, Figma, Git, REST API
- Designed and launched a full-stack web application leveraging HTML, CSS Bootstrap framework, Flask, React, and MongoDB to replicate Microsoft Teams; reduced on boarding time for new users by 40% through intuitive UI.
- Utilized task flow diagrams, prototypes, sitemaps, and wireframes for planning and ensuring user requirement alignment.
- Achieved 85% feature completion and 95% alignment with user needs through pre-project planning and user persona definition.

Android Application | Java, JUnit, Mockito, API Integration, Agile Methodologies, Firebase, Git
- Implemented an Android application for goods trading with PayPal and Google Maps APIs, applying test-driven development with JUnit and Mockito.
- Pioneered Agile methodologies, including pair programming and iterative development, enhancing team efficiency and project delivery.
- Managed Git issues and resolved merge conflicts, achieving 90% completion of the application by term's end.

UI/UX Design | Figma, Canva
- Created an intuitive user interface for a Campus Safety app prototype, employing design tools like Figma and Canva, which enhanced clarity and navigation, leading to positive feedback from 95% of user test participants.

Certifications

Certified Developer - Associate | Amazon Web Services (AWS) *Upcoming*
AWS Academy Cloud Foundations | Amazon Web Services (AWS) *Jul 2023*