VINAYDEEP KAUR

Master in Computer Science, 4 years of Software Engineering

Phone: +1-8073587074 ● E-Mail: kaurvinaydeep@gmail.com ● LinkedIn: https://www.linkedin.com/in/vinaydeep-kaur

TECHNICAL SKILLS

- Programming knowledge in Java, Python, JavaScript, HTML, CSS, MySQL, Postgres, MongoDB
- Tools: AWS, Jenkins, CI/CD, Github
- Technologies: Data analysis, Feature engineering, TensorFlow, Neural Networks, Data visualization, Machine learning, artificial intelligence

EDUCATION

Masters in Computer Science – 90.7%	Lakehead University**,** Thunder Bay, Ontario	Graduated: Sep 2021- Aug 2023
Bachelors in Information Science and Technology - 83.2%	Nitte Meenakshi Institute of Technology**,** Bangalore, India	Graduated: Aug 2013-May 2017

WORK EXPERIENCE

QA Automation Engineer (Full time) – Java, Selenium

Ribbon Communications, Bangalore, India   July 2017 to July 2021

Projects: EMS – Element Management System, LI – Lawful Intercept, MRFP – Multimedia Resource Functional Processor

- Collaborated with cross-functional teams to understand project requirements and design effective test strategies.
- Developed and executed automated regression test cases using Selenium WebDriver and Java, resulting in a **90% reduction in testing time from 1 week to 8hr**.
- Created detailed Test Plans and Test Cases, ensuring comprehensive coverage of software functionalities.
- Implemented Page Object Model with Page Factory in Selenium, enhancing test maintenance and **reducing code duplication**.
- Conducted Smoke testing, Sanity testing, Functional testing, Integration testing, and Regression testing, identifying critical issues and ensuring software quality.
- Utilized SOAPUI and RESTful web services for functional testing, identifying, and reporting defects in a timely manner.
- Integrated automated tests into Jenkins CI/CD pipelines, facilitating efficient and consistent software delivery.
- Implemented Log4j for enhanced logging and monitoring during testing, leading to **improved issue tracking and analysis**.
- Engaged with developers to expedite defect resolution by reproducing, analyzing, and prioritizing reported issues. Also, actively **contributed insights into software quality** and process enhancements during Agile ceremonies.

Full Stack Developer (Internship) – JavaScript, NodeJS, MongoDB

Ulphi Technologies, Bangalore, India   June 2016 to Sept 2016

- Developed dynamic single-page responsive web applications using JavaScript, MeteorJS, NodeJS, MongoDB, HTML, CSS, and Bootstrap.
- Implemented template rendering techniques to create **seamless user experiences**, optimizing performance across various devices.
- Utilized iron router for efficient template routing, effectively integrating menu bars, banners, and articles into the application.
- Integrated MongoDB to store and manage contact information and user queries, ensuring **reliable data storage and retrieval**.
- Conducted thorough unit testing for each module, **consistently meeting performance benchmarks** and delivering high-quality code.
- Contributed to cross-functional requirement gathering and technical insights while enhancing code quality through reviews and proactive troubleshooting for optimized application performance.

PROJECTS

RESEARCH PROJECTS

Privacy-preserving EEG emotion recognition using multi-loss deep learning architectures

Lakehead University, Ontario   Jan 2023 – Aug 2023

- Worked on striking a balance between maximizing the information gained from EEG applications, including emotion detection and mental state analysis, and minimizing the risk of disclosing a user's identity or sensitive information that may be inadvertently disclosed through EEG signals.
- Constructed a hybrid deep learning CNN model featuring adversarial learning, fine-tuning weights to boost task classification

accuracy while decreasing user identification accuracy to preserve identity.

Crowd-sourcing based android application for structural health monitoring and data analytics of roads using cloud computing

NMIT, India   Jan 2016 – Feb 2017
- Developed an IoT crowdsourcing-centered Android application for identifying road damage and generating reports, employing Google Navigation API and Google Voice Interaction API.
- Implemented SQLite database on the mobile platform for caching and employed Firebase database for cloud storage.
- **Won a national award for innovation**

RECENT PROJECTS (10+)

SmartLectures (Individual project) — **Python**, **AWS transcribe**, **Natural Language Processing techniques**

Lakehead University, Ontario   Jan 2023 – Apr 2023
- Engineered an application streamlining student access to video content by enabling rapid search for topics and key phrases across a 40-lecture course.
- Utilized Amazon S3 buckets and AWS Transcribe to store and transcribe videos, preprocessing and normalizing text to extract keywords and phrases from transcriptions.
- Constructed a user-friendly dashboard, empowering users to effortlessly locate videos through keyword searches.

ASBESTOScope (Group project) —**Python**, **Machine learning**, **Semi-supervised learning**, **SMOTE**

Lakehead University, Ontario   Sep 2022 – Dec 2022
- Analyzed and evaluated the performance of supervised learning techniques to detect mesothelioma.
- Introduced an enhanced solution for the undersized and unlabeled mesothelioma dataset by applying SMOTE and semi-supervised learning strategies.

NetShield (Individual project) —**Python**, **Machine learning**, **data analysis**, **feature engineering**

Lakehead University, Ontario   Sep 2022 – Dec 2022
- Developed a Machine Learning-driven approach for detecting vulnerable network configurations to enhance intrusion prevention.

MailDefender (Individual project) —**Python**, **Machine Learning, HTML, CSS, Streamlit, Heroku**

Lakehead University, Ontario   Apr 2022 – Aug 2022
- Created a website with a spam email classifier that employs machine learning algorithms to discern whether an email is spam.

EXTRACURRICULAR ACTIVITIES AND ACCOMPLISHMENTS

- GSA Executive Award recipient for 2023 for an overall profile in academics and cocurricular, March 2023.
- Volunteering: Orientation event management volunteer, Fall 2022.
- Second runner-up in national technical project contest UNISYS Cloud 20/20 for Innovation, Feb 2017
- Active member of Google Developer Students Club.