

# GAURAV VERMA

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## EDUCATION

### University of California - Irvine

September 2024 - December 2025

Master's, Computer Science

- Operating Systems, Data Structures, Artificial Intelligence

### Savitribai Phule Pune University

August 2018 - May 2022

Bachelor's, Computer Engineering

GPA: 9.5

- Object Oriented Programming, Data Structure and Algorithms, Database Management Systems, Digital Electronics and Logic Design

## PROFESSIONAL EXPERIENCE

### Integral Ad Science

Pune, MH, India

Software Engineer

April 2024 - July 2024

- Streamlined over 10,000 daily campaign creations and tag wrappings by integrating Google Campaign Manager 360 (CM360) with the company's internal system using AWS Lambda, AWS API Gateway, and AWS Kinesis via a unique API key, significantly reducing manual workload and eliminating human errors.
- Developed and implemented Databricks jobs that extracts the advertiser/agency (client) hierarchical structure from Salesforce, storing data up to 4 tiers to optimize data access limits and enhance organizational data management.
- Maintained Media Rating Council (MRC) accreditation by collaborating with compliance teams and auditors, ensuring adherence to industry standards for over 100 organizational metrics.

### Integral Ad Science

Pune, MH, India

Associate Software Engineer

July 2022 - March 2024

- Enabled data analysis for 1 billion monthly impressions by designing and deploying a custom backend service using Kubernetes, Spring Boot, and gRPC endpoints, with custom filters based on naming conventions of over 30,000 campaigns and 400,000 placements.
- Implemented enhanced reporting capabilities by leveraging Looker and Snowflake to introduce multidimensional data analysis, allowing for data delivery with granularity up to five levels and offering detailed metrics for deeper insights.

### Integral Ad Science

Pune, MH, India

SDE Intern

September 2021 - May 2022

- Reduced query resolution time by 35% by creating a chatbot powered by Elasticsearch and BERT, integrated with Slack, to provide real-time access to the company's extensive knowledge base.
- Increased testing efficiency by developing an automated testing framework using Cypress and Docker, integrating it with Jenkins for seamless CI/CD pipelines. Saved developers approximately 10 hours per week by automating manual data comparison testing.

## SKILLS

**Programming Languages:** Java, C/C++, Python, JavaScript, Kotlin, SQL

**Framework:** Apache Spark, Spring Boot, gRPC, Protocol Buffers, REST APIs, React.js, AngularJS, Cypress, Docker, Apache POI, Hibernate, Flask, Django

**Developer Tools/Platforms:** Github, JIRA, Docker, Kubernetes, Amazon Web Services, Databricks, Snowflake, Looker, Salesforce, Prometheus, Grafana

## PROJECTS

### Wordle AI App - Game Optimization through Algorithms

Irvine, CA, USA

October 2024 - October 2024

- Designed and integrated backend algorithms (Monte Carlo, Reinforcement Learning, and CSP) for optimized Wordle gameplay, enabling strategic guessing and performance comparison across algorithms.
- Created a dynamic game dictionary with randomization logic, applied Constraint Satisfaction Problem (CSP) principles to restrict word selection, and implemented game rules using Flask, Python, and React on an AWS-hosted platform.

### User space Dynamic Thread Scheduler

Irvine, CA, USA

September 2024 - October 2024

- Developed a library in C for thread management mechanisms, including thread creation, switching, and synchronization, to enable efficient cooperative multitasking.
- The library can optimize CPU usage by allowing multiple threads to run cooperatively, leading to better performance for applications that require concurrency.

### Image Captioning using Machine Learning

Pune, MH, India

March 2022 - May 2022

- Designed and implemented convolutional neural networks (CNNs) with TensorFlow using the Common Objects in Context (COCO), FlickrK datasets, achieving up to 70% accuracy in image-to-text translation.
- Integrated the model with the user interface (UI) by utilizing Flask REST APIs, enhancing the user experience and accessibility of the platform.