

# Amit Agrawal

SOFTWARE DEVELOPMENT ENGINEER | CREATIVE PROBLEM SOLVER

425, Hukumchand colony, Indore (MP)

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## Education

### Birla Institute Of Technology and Science, Pilani

B.E. (Hons.) | CGPA 7.68/10.0

- **Relevant Courses:** Object Oriented Programming, Operating Systems, Machine Learning

Pilani, RJ

2015-2020

### CBSE Class XII (Science)

SHREE VAISHNAV ACADEMY | 92.2%

Indore, MP

2015

## Skills

### Languages

Javascript, Typescript, Python, Java, HTML

### Tools/Frameworks

AWS, Docker, Gitlab, Node, Express, mongoDB, Redis, Flask, mocha, Pytest, Sentry, Graphana, OpenTelemetry, SpringBoot, Maven, Junit, mockito

## Experience

### Hyperverge Inc.

SOFTWARE DEVELOPMENT ENGINEER

Bangalore, KA

June 2020 - present

- Worked on enhancement of microservice architecture and created a cloud-agnostic stack for SEA nations in AWS, Azure and Alicloud.
- Converted the synchronous architecture to Asynchronous event-based architecture thereby reducing response times by 40%.
- Set up alarms using cloudwatch metrics, graphana and opsgenie based alert mechanism to achieve 99.9% uptime.
- Used tools like sentry, opentelemetry as well as set up test environment to reduce error rates to almost zero.

### Morningstar, Inc.

TECHNOLOGY INTERN

Mumbai, MH

Jul 2019 - Dec 2019

- Developed micro-services and RESTful APIs using AWS components such as s3, lambda, dynamoDB, CloudWatch, Splunk, etc.
- Performed extensive integration testing as well as unit testing for the same JUnit 5 and mockito framework.
- Participated in AWS DeepRacer Challenge, trained autonomous race car using Reinforcement Learning, best lap-time = 10.19 s.
- **Recognition:** Awarded Morningstar monthly SPOT Award for September 2019.

### Central Electrical Engineering Research Institute (CEERI – CSIR)

RESEARCH INTERN

Chennai, TN

May 2017 - Jul 2017

- Worked on "Embedded Wireless-Enabled Plastic Waste Sorting System".
- Implemented Spectral Angle Mapping Algorithm in Python to segregate different kinds of plastics by comparing their NIRS spectra.
- Developed a wireless GUI for remote monitoring, data collection and information management in python using tkinter toolkit.

## Academic Projects

**Jan 20- Jun 20** **AN OPTIMIZATION MODEL FOR VRP IN DELIVERY OF NON-PERISHABLE GOODS** - Implemented optimization algorithms like Intra-route Local Search, Inter-route Local Search and TABU Search that provide a sub-optimal solution to this NP-hard problem. Compared Cost and CPU-time metric and effect of instance size.  
(<https://github.com/aagraw2/route-planner>)

**Aug 18 - Dec 18** **CORPORATE CREDIT RISK ASSESSMENT USING MACHINE LEARNING AND STATISTICAL METHODS** - Analyzed determinants of Credit default risk and modeled default risk behavior of firms to improve accuracy of default predictions. Achieved a training accuracy of 80.78% using an ensemble of SVM, Decision tree and KNN classifier.  
(<https://github.com/aagraw2/sop-nvms-eco>)

## Leadership

**Jan 18 - May 18** **Project Leader, Gyanbodh (Baas), Nirmaan Organization**, led a team of more than 20 volunteers working for holistic and sustainable development of Baas community having 600+ beneficiaries.

## Honours & Awards

- 2014 **KVPY Fellowship (Awardee)**, Dept. Of Science and Technology (DST), Govt. of India
- 2013 **NTSE Scholarship (Awardee)**, National Council Of Educational Research And Training (NCERT), Govt. of India
- 2012 **National Standard Examination in Junior Science (NSEJS) (Cleared)**, Indian Association of Physics Teacher (IAPT)