Vaibhav **Agrawal**

Software Engineer · Blockchain · Machine Learning · San Francisco, CA

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Work Experience

Twitch (Amazon)
San Francisco, CA

Software Engineer II
Mar. 2021 - PRESENT

- Leading re architecture and build of scalable and extensible payments platform that makes it easy to build and sell digital products
- Led the design and migration of async payments flow from a legacy monolith service without any downtime
- Introduced regression and component testing in critical payment paths that perform tests at scale and thus reduce toil and induce trust
- Mentored a summer intern, coaching them through the design, planning and implementation of a product facing project

FITL Center, New York University
New York, NY

Software Developer
Oct. 2019 - Dec. 2020

- Built a REST-driven web application for a New York University tutoring program using Django, PostgreSQL and React
- Designed a dedicated algorithm to match students and tutors into individual and shared tutoring sessions

Salesforce
San Francisco, CA (Remote)

Product Manager Intern
June. 2020 - Aug. 2020

- Built a core release management tool on GUS to provide users a seamless agile experience in their production cycle
- Worked directly with end-use customers to identify existing pain points while collaborating cross-functionally with engineering and UX teams

Education

New York University
New York, NY

M.S. in Computer Science (GPA: 3.85/4)
Sept. 2019 - Dec. 2020

- Algorithms, Database Systems, Big Data, Cloud Computing, Application Security, Deep Learning, Computer Networking, OS, Advanced Java

Indian Institute of Technology
Kharagpur, India

Bachelor of Technology (GPA: 9.03/10) | Gold Medalist
July. 2015 - Aug. 2019

- Holder of 2019 Anukul Chandra Sarkar Memorial Gold Medal for achieving highest GPA in the department
- Algorithms and Data Structures, Switching Circuits and Logic Design, Computer Architecture, Operating Systems, Parallel Programming, Probability and Statistics, Machine Learning, Artificial Intelligence, Natural Language Processing

Skills

Programming	Golang, Python, Solidity, C++, Java
Full Stack Tools	AWS, Docker, Terraform, gRPC, GraphQL, Jenkins, Bash, REST, Django, React.js, Swift(iOS), Android
Blockchain	Ethereum, Web3.js, Smart Contracts, Truffle, DApps Architecture, IPFS, Consensus & Cryptography
Databases	PostgreSQL, RDS, DynamoDB, MongoDB, MySQL
Big Data & ML	MapReduce, Spark, Kafka, ElasticSearch, Kibana, Scikit-learn, Pandas, Pytorch, Tensorflow, NLTK, Scala, R

Projects & Publications

Designing Microservices on AWS
New York, NY

Cloud Computing, Department of Computer Science (NYU)
Spring. 2020

- Built server-less web apps for smart door authentication, email spam filtering and NLP powered photo search using various AWS tools

Twitter Bot Detection
New York, NY

Big Data, Department of Computer Science (NYU)
Spring. 2020

- Built a big data ML model to identify Twitter bots spreading election propaganda with an accuracy of 91% using SparkML, MongoDB and Kafka

Journal of the Eastern Asia Society for Transportation Studies (EASTS)
Japan

Author of: "Crash Severity Analysis Through Nonparametric Machine Learning Methods" (Cited by 3)
Dec. 2019

- Explored three ML algorithms to identify critical factors affecting severity of accidents and achieved the best accuracy of 90% with XGBoost

Computational Sanskrit & Digital Humanities (17th World Sanskrit Conference)
Vancouver, Canada

Author of: "Improving the learnability of classifiers for Sanskrit OCR corrections" (Cited by 5)
July. 2018

- Improve the accuracy of word corrections up by 10% by introducing semantic language constraints of the Sanskrit grammar
- Further demonstrated different machine learning approaches like attention models and achieved the best F-score of 93.72 with LSTM