KETAKI LOLAGE

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Professional Experience

Software Developer Intern   May 2022–July 2022
nedl   Los Angeles, CA
- Saved $30,000 in transcribing 1000 podcasts by replacing AWS Transcribe with Mozilla DeepSpeech in Python
- Saved 58 hours of manual labor by scraping Wikipedia, Audials and radio-browser for radio stations
- Replaced the trending words module; exposed the Node.js backend APIs; documented architectural revisions

Junior Consultant (Developer)   Sep 2018–Aug 2020
TIBCO Software   India
Crawford Insurance Claims Management
- Spearheaded development of cloud-native microservices in service-oriented REST API integration style using Java, SQL and Eclipse-based TIBCO BusinessWorks Container Edition
- Engineered process to join claims data from AWS S3, Amazon Athena and Microsoft SQL Server, and push to Redshift
- Created listener on RabbitMQ messaging queue to capture employee profile updates published by TIBCO EBX and sync them to Amazon Redshift
- Bundled application EARs into Docker containers and deployed to AWS Elastic Kubernetes Service (EKS) on EC2 instances
TIBCO Flogo Product Engineering
- Analyzed need for features and custom functions in new cloud platform; contributed to development using Golang

Skills

Languages: Python, Java, C/C++
Databases: Oracle SQL, PostgreSQL, MySQL, MongoDB
Web Development: React, Node.js, JavaScript, HTML, CSS
OS: Linux Ubuntu, Windows 7+
Other: Docker, Kubernetes, Git, Bash, Jupyter Notebook, VS Code, Eclipse IDE

Projects

Comparative Analysis of Genetic Data for Anomaly Detection (Team of 4)
- Implemented a hierarchical framework to calculate chances of a subject being afflicted by genetic diseases
- Reduced computation time e.g. computation against dengue sequence finished in 1.2 hours on the hierarchical setup as opposed to 24 hours on the PARAM SHAVAK Supercomputer
- Co-authored and published "Genetic Sequence Alignment: A Comparative Study of Methods" in IEEEXplore
- Tools: Python, MongoDB, PHP, HTML, CSS

Time Series Analytics
- Fitted logistic regression models to time-domain features extracted from time series data of human activities
- Performed cross-validated recursive feature elimination on differently shaped splits of the dataset
- Corrected marginal imbalance using SMOTE; achieved reliable coefficients
- Tools: Python, Jupyter Notebook

Predicting Violent Crime in Communities
- Analysed the effect of 122 socio-economic factors on violent crime per capita in a community using 5 methods: ordinary least squares linear regression, ridge regression, LASSO, PCR, and boosted decision tree
- Achieved 98.27% test accuracy using the boosted decision tree
- Tools: Python, Jupyter Notebook

Education

University of Southern California, Master of Science in Computer Science   (Expected) May 2023
University of Pune, Bachelor of Engineering in Computer Engineering

Leadership and Mentoring

- **Google ExploreCSR Mentor** (Spring 2023) – conducting biweekly workshops on Python, Machine Learning, and Computer Vision for 40+ students; advising group of 3 students on capstone project with guidance from Google mentor
- **Viterbi Graduate Orientation Leader** (Spring 2023) – led a presentation on life at USC for 32 incoming graduate students; organized welcome events for the entire graduate cohort of 600+
- **Course Producer - CS585 Database Systems** (Spring 2023) – holding office hours, answering queries, grading coursework
- **Viterbi Graduate Mentor** (Fall 2022) – mentored two incoming international graduate students one-on-one