Darshan Chaudhary

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Industry Experience

Software Developer   Draup · Bangalore, India · 06/2017 - Present

Built internal services used for making sense of data at scale - company names, location and scaled them with Kubernetes.

Maintained the infrastructure for Draup - using Terraform to provision, Jenkins for CD, Ansible to build

Maintained Draup platform's core backend web application with new features, bug fixes

Product Development Engineer   Appknox · Bangalore, India · 06/2016 - 06/2017

Designed and built the internal CRM module used for end-to-end managing of all client accounts.

Designed and implemented a centralized, containerized logs processing pipeline (collection+filtering+visualization) for all the projects of the company based on the Elasticsearch, Logstash, Kibana (ELK) stack. Deployed it using Docker Machine, with Compose for orchestrating the containers.

Maintained Appknox's core backend web app with new features, test suites and bug fixes.

Machine Learning Intern   Exponentia Datalabs · Mumbai, India · 06/2015 - 12/2015 (6 mos)

Designed an age-gender prediction pipeline for a client wanting to keep a tab on the profile of customers visiting the company owned supermarkets. Implemented the pipeline using caffe(the deep learning framework), OpenCV and SciPy stack. The model read the CCTV feed, used background subtraction algorithms for motion detection, detected faces using Viola-Jones algorithm, passed the cropped faces to a convolution neural network which output age and gender to be stored in MySQL database.

Personal Projects

Open source contributions   Contributed to Heimdall, Sympy, Scrapy, Zulip

Made bug fix contributions to Sympy, Scrapy and other open source projects.

Computer Science notes   Open sourced personal computer science notes

Topics included Machine Learning, Operating Systems, Compilers, Golang etc. Well received by community - github.com/darshanime/notes

Algorithmic agents to play games   Implemented Minimax, Expectimax, Markov Decision Processes

Agent successfully played non-deterministic games like 2048, Pacman with adversarial/random ghosts (opponents), zero sum games like Tic-Tac-Toe etc.

Sandpiles simulation program   Ability to record visualizations

Wrote a program which allows defining generalized sandpiles and an initial state to begin with and simulates it till it reaches a stable state with the option to record final state and/or intermediate states.

Mortality Prediction System   Outperformed standard industry scores like SAPS, MPM

Used an ensemble of SVMs created using the SciPy stack to create a mortality prediction system for ICU patients. The dataset used to train the ensemble included time series readings of 6 body vitals and 25 lab measurements for each patient with a final binary label indicating patient's survival. Model outperformed commonly used acuity scores, such as APACHE, SAPS, MPM, and SOFA.

Education

BITS Pilani   BE (Hons.) Mechanical Engineering · 08/2012 - 06/2016

University Honors Program. CGPA 7.69/10

BITS Pilani   Minors in Finance · 08/2013 - 06/2016

University Minors Program. Courses included - Stock Markets, Accounting, Derivatives and Risk management

Delhi Public School, Gurgaon   Higher Secondary Certificate, (Class XII) · 2012

Percentage achieved: 91.0% · Subjects: Informatics Practices, Maths, Physics, Chemistry

Delhi Public School, Gurgaon   Secondary School Certificate, (Class X) · 2010

Percentage achieved: 91.2% · Subjects: Maths, Sciences, English

Computer Skills

Languages Python, Go, Java, C, Bash

Domains Data Structures, Algorithms, Operating Systems

OSs | Databases GNU/Linux | PostgreSQL, MySQL, MongoDB

Version Control Git

Cloud Providers Amazon Web Services, Google Cloud

Containerization | Orchestrators Docker, Kubernetes, Docker Compose, Cloud Foundry

Miscellaneous

Organizer of Bangalore Advanced Machine Learning Meetup - https://www.meetup.com/baml-meetup/

Gave talks about mortality prediction using ML, reinforcement learning at above mentioned meetup

Host of The Open Internals Podcast - https://openinternals.com/

Maintain a blog at https://darshanime.github.io/til

Emacs evangelist; successfully converted multiple Vim users to Emacs

Volunteered at the Harvard Model United Nations Conference 2014, Hyderabad

Built an All Terrain Vehicle (ATV) for participating in SAE BAJA 2015

Member of various clubs during undergraduate degree including ELAS, Embryo, Bulls and Bears, CRUx