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AAKASH PYDI

Computer Science

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EMPLOYMENT

Software Engineer Jetstream Platform	Cerner Corporation	March 2019 – Present
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- Responsible for the Enterprise System Management team's customized Apache Airflow platform which has more than 3000 daily jobs (and counting) and serves as an [ETL pipeline platform](#) within our data infrastructure.
- Development work focused on two fronts (i) supporting new Cerner data workflows and (ii) architecture changes to make the platform more resilient and compute efficient.

Selected Updates:

- Implemented updates to support the near real time data ingestion of SLI metrics from New Relic and Splunk using a Redis based optimization and custom airflow modules + operators.
- Improved the efficiency and added backfill support for an important analytics DAG which generates daily reports on the user experience of care givers across the globe.

Apache Airflow, Python

Management Big Data Common

- Updated the common module used by all the components of our ingestion framework (Kafka, Streams, Vertica, Hadoop and so on) to support payload metadata overriding by parsing payload entity keys.

Java

User Experience Monitoring Spark Prototype

- Organized the User Experience Monitoring Spark Prototype development at an internal hackathon.
- Responsible for the team formation, development planning, subset of the coding, presentation preparation, presentation delivery. Our team received second place out of the sixteen teams from across Cerner KC, based on the primary judging metric of 'potential value for Cerner'.

Apache Spark, Kafka, Hadoop, Scala

GitHub Time Machine (DevAcademy Project)

- Spearheaded full stack design for allowing text search across branches in a given GitHub repository.
- Implemented server-side code to index GitHub repositories on an Elasticsearch search and analytics engine.
- Implemented client-side code to add/delete repos from the search index.

Elasticsearch, CppCMS, ReactJS

EDUCATION

West Lafayette, IN	Purdue University	December 2018
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- Bachelor of Science (B. Sc) in Computer Science (Concentration in Machine Intelligence),
Technical GPA: 3.93
- Relevant Coursework: · Data Mining & Machine Learning (A) · Web Information Search & Management (A) · Information Systems (A+) · Deep Learning (A-) · Applied Regression Analysis (A) · Analysis of Algorithms (A-) · Data Structures & Algorithms (A-) · Systems Programming (A+) · Programming in C (A) · Computer Architecture (A) · Objected Oriented Programming (A+) · Calculus I & II & III (A+, A+, A+) · Linear Algebra (A) · Intro Statistics (A+) · Probability Theory (A)

ACADEMIC PROJECTS

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- **Neural Style Transfer Artwork** (Purdue Center for Brain-Inspired Computing, 2018). Implemented a Generative Adversarial Network to create images that captured the style of Indian artists.
Pytorch, Python
 - **Real Time Classification Video Stream** (Purdue CBRIC, 2018). Developed a video stream that classifies images in the stream in real time using a LeNet5 CNN trained on the CIFAR100 Dataset.
Pytorch, Python

LANGUAGES AND TECHNOLOGIES

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- Most Experienced with Java & Python; Some Experience with C++ & C & Scala & SQL & PL/SQL & JavaScript & CSS;
 - Airflow; Vertica; Spark; Kafka; PyTorch; Keras; GenSim; Galago Toolkit; Elasticsearch; CppCMS; ReactJS & Redux;

AWARDS

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- **Purdue University College of Science Scholarship Award.**
 - **Purdue University Computer Science Department Scholarship Award.**