Kallol Das

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https://github.com/hillolkallol/

Education

- **New Mexico Institute of Mining & Technology** — Socorro, NM, USA
  Master of Science in Computer Science; CGPA: 3.72 — *Aug. 2016 - May 2019*
- **Leading University** — Sylhet, Bangladesh
  Bachelor of Science in Computer Science & Engineering; CGPA: 3.65 — *Jan. 2011 - Mar. 2015*

Programming Skills

- **Languages**: **Java**, **Python**, C#, C, JavaScript
- **Databases**: MySQL, SQLite, Oracle, MongoDB
- **Frameworks**: Spring Boot, Spring MVC, Hibernate, JPA, Thymeleaf, React.js, Twitter Bootstrap
- **Libraries**: Scikit-Learn, Orange, TensorFlow, WEKA, Matplotlib, Pandas, Keras, OpenCV, JUnit
- **Others**: ElasticSearch, Kibana, Logstash, Filebeat, Git, JSON, Agile, HTML5, XML, CSS3, Maven, REST API, TDD

Experience

- **Intel Corporation** — Hillsboro, OR, USA
  Software Engineer — *Jan. 2020 - Present*
  - Provide on-call support to solve challenging automation issues for Intel's primary factory **research & development** facility in real time to keep the production running 24/7.
  - Monitor automation system performance by **analyzing data & logs** and perform necessary critical procedures.
  - **Automated** an existing manual procedure to keep backup of important data and logs during **critical events**.
  - **Improved** an existing log search by **developing** a log analyzer using Elastic Stack.
  - **Volunteered** in spiral testing for a new release of one of the in-house automation software.
  - **Designing & developing** a **search engine** for Intel Automation System to provide optimized search results.
- **New Mexico Institute of Mining & Technology** — Socorro, NM, USA
  Research Assistant — *Aug. 2016 - Dec. 2018*
  - Developed machine learning model that **automates** the work of meteorologists by **aggregating** output of rainfall prediction conceptual models with **4%** lower error rate.
  - Clustered conceptual models based on geography that helps to develop better conceptual & aggregated models.
  - Performed **statistical & visual analyses** on rainfall prediction & verification data.
  - Contributed to a storm detection research project to identify patches by **implementing and modifying Connected Component Labeling** and **Skeletonization (Thinning)**.

Projects

- **Rainfall Prediction**: Explored applying Machine Learning techniques to analyze, verify, aggregate and post process conceptual rainfall models. Outperformed existing models in **more than half the geographical** locations. [Python, Scikit-Learn, Matplotlib, Pandas, NetCDF & HDF Dataset]
- **Nomad**: Developed a carpooling application that considers geographic data in order to determine which passengers can commute most optimally to a given map region. [Java Servlet, JSP, Twitter Bootstrap, MySQL]
- **Cancer Prediction**: Developed early stage Lung Cancer Prediction model using machine learning to provide prediction based on 1500 CT Scan images. [Python, Tensorflow, WEKA, DCM data]
- **Lisp Interpreter**: Developed Lisp Interpreter with all basic operations including Definition, Conditional, Quotation, Procedure, & Dynamic Scoping. [Java]
- **Data House**: Developed an Online Survey System to store, analyze & visualize survey data. [JSP, MySQL]
- **Character Recognition**: Implemented Maxnet, LVQ & Hopfield Model algorithms to explore machine learning models & recognize English character. Preprocessed data & added random noises. [Python, OpenCV]
- **Forest Fire Detection**: Collected fire data by simulating environment. Used sensor permutation technique to create more synthetic data. Applied data cleaning and interpolation. Achieved the best **accuracy of 98%**. [Matlab, WEKA]