ABINASH KOIRALA

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EXPERIENCE

Graduate Teaching Assistant   Aug 2015 - May 2016
Rensselaer Polytechnic Institute, Troy, NY
- TA for courses on Data Science, Software Development, and Information Systems Security.
- Prepared and presented demo of lab exercises and projects, and evaluated students' submissions.

Principal Software Engineer   June 2013 - July 2015
Acubor Pvt. Ltd, Kathmandu, Nepal
- Led a project team of five software engineers through three major releases of an Accounting app.
- Designed and implemented MVC application architecture in both back-end and front-end.
- Implemented live data integration from Verifone NAXML web services using its POS Backoffice API.
- Implemented asynchronous job scheduling modules for on-demand and scheduled reporting tasks.
- Implemented scalable and extensible RESTful Web Services on top of Django ORM.
- Tech stack: Python, Django, PostgreSQL, KnockoutJS, Highcharts, Celery, Redis, AWS EC2/S3.

Software Engineer   Feb 2012 - June 2013
Verisk Information Technology, Kathmandu, Nepal
- R&D Engineer and Scrum team member for Unified Platform project team.
- Implemented business work-flow modules using Carnot Workflow Engine, EJB framework, and JMS.
- Migrated Oracle PL/SQL data integration scripts to Syncsort DMExpress Jobs.
- Wrote module for specialized reports generation using BIRT Report.
- Tech stack: J2EE, C, EJB, Apache Velocity, JMS, Oracle, Syncsort DMExpress, BIRT Report.

EDUCATION

MS in Information Technology   Rensselaer Polytechnic Institute, Troy, NY   May 2016
Data Analytics, Informatics, Cloud Computing, Business Analytics, Human Computer Interaction

BE in Computer Engineering   Tribhuvan University, Kathmandu, Nepal   Sept 2011
Algorithms, Databases, Computer Networks, Data Mining, Computer Architecture, Operating Systems

ACADEMIC PROJECTS
- Adaptive re-partitioning of 110 M social-graph vertexes in Apache Giraph; Hadoop cluster on Amazon EMR.
- Text classification using Stochastic Gradient Descent for Kaggle Competition: What's Cooking; Python.
- Predictive analytics of earthquakes and lunar cycles time-series using auto-regressive models; R.
- Salesforce Marketing analytics dashboard using Node-Mongo-Plotly web-app, and iPython microservices.
- Host Based Intrusion Detection System using Markovian Models and Self Organizing Maps.
- Research on streaming algorithm for Log Text Clustering using Locality Sensitive Hashing.

TECHNOLOGY SKILLS
Languages: Proficient in: Python, Java, JavaScript, R. Prior Experience: C, C++.
Web: Django, NodeJS, KnockoutJS, ReactJS, D3, Plotly, Celery, HTML5, CSS3.
Databases: SQL, NoSQL, and distributed caches.
Servers: Linux and Windows stacks, Gunicorn, Nginx.
Data Science: R, Python, Apache Spark, Hadoop, Giraph.
Software Engineering: Agile, Scrum, Jira, Git, Git Flow, Jenkins, SVM.