Dhiraj Kumar

Education

July 2016 -
May 2020
Indian Institute of Technology Kharagpur,
BTech. Industrial and Systems Engineering, GPA: 9.20/10.

Work Experience

July 2020 -
Present
SAP, SuccessFactors.
Associate Software Developer
- Designed and implemented a decentralized pipeline for executing performance tests in more than 50 datacenters
- Successfully created a framework for triggering and analyzing load test results using GitOps, Docker and Jenkins
- Slashed lead time for performance testing by more than 30%. Made the framework highly flexible and accessible

July 2019 -
Present
Udacity, React Nanodegree Mentor.
Remote and Part-time
- Responsible for mentoring students pursuing the React nanodegree by monitoring and grading their projects
- Support the students via 1:1 technical sessions to give them feedback and to clear their doubts

Internships

May 2019 -
July 2019
MIT Computer Science and Artificial Intelligence Laboratory, Visualization Group.
Software Developer and Research Intern
- Implemented and studied various visualization environments with native support for interaction and animations
- Used TypeScript, JavaScript and Jest to develop various new features for the Vega Lite visualization language
- Made on top Vega, the environment helps users to create D3 like graphics with no programming experience

April 2018 -
Oct 2018
Google Summer of Code - Mozilla, Iodide.
Software Developer Intern
- Worked on Iodide - an open source browser based portable notebook for scientific computation and analysis
- Created a server component using Django to implement version control and revisioning system for the notebooks
- Implemented features using React and Redux, made the codebase more robust and performant by writing tests

Aug 2017 -
Feb 2018
Complex Networks Research Group, Department of CSE, IIT Kharagpur.
Research Assistant
- Developed CLScholar, an advance search portal that supports NL Queries and provides public API endpoints
- Designed and developed frontend on React, API on NodeJS and database on MongoDB
- Wrote queries to support over 1200 unique Natural Language Queries using the knowledge graph

Projects

Audan
- Developed an application for enhancing the teaching-learning process through personalized feedback
- Takes the classroom video and audio as an input to create emotion-environment sensitive reports

Qikert
- A multiplayer quiz app built using React Native, Node JS, Web sockets and Typescript
- Multiple users can connect together using the app to create their own quiz or play a standard one

Switter
- Trained a deep neural network model to classify tweets as hate speech, racist, offensive and neutral
- Developed a browser extension to automatically hide or cover those tweets in a Twitter feed

Khet
- Developed an HCI driven mobile application for semi-literate farmers of India to remove middlemen
- The technology stack consisted of React Native, Google Cloud Vision APIs, NodeJS and Firebase

Skills

Languages Javascript, Python, C, C++, SQL, TypeScript, ES6, CSS
Libraries React, NodeJS, Django, D3, Pandas, Redux, Flask, React Native
Tools Git, Jenkins, Docker, Kubernetes, Consul, Vault

Leadership

Feb 2018 -
Feb 2019
    Kharagpur Open Source Society.
Executive Head
- Lead the Introduction to JS workshop at Open Source Summit 2018 with participants from all over India
- Organized and tutored Git workshop to help bring the student community closer to the field of Open Source
- Organized and managed KWoC programme which had over 3000 registrations from more than 50 universities

Publications

May 2020   **Lyra 2 : Designing Interactive Visualizations by Demonstration [link]**.
- Authored by Jonathon Zong, **Dhiraj Barnwal**, Rupayan, Arvind Satyanarayan
- Accepted at <u>IEEE Vis 2020</u> - (Virtual)

Feb 2018   **CL Scholar: The ACL Anthology Knowledge Graph Miner [link]**.
- Authored by Mayank Singh, **Dhiraj Barnwal**, Pradeep Dogga,Sohan Patro, Ritam Dutt, Rajarshi Haldar, Pawan Goyal, Animesh Mukherjee
- Accepted at <u>NAACL 2018</u> - (New Orleans, USA)

Awards and Achievements

Jan 2019	Winner, Xilinx Innovation Challenge, Kshitij - Tech fest
Sep 2018	2nd Runners up at Hack-a-bit Hackathon
Jun 2019	India Finalist, IIGP University Innovation, Govt. of India
Apr 2019	India Finalist, Top 6 in the Smart India Hackathon - Open Innovation
Apr 2019	Maintained the top position in the whole department for over 6 semesters
Jan 2020	Finalist, Google's Build for Digital India
May 2020	Recipient of IITKGP US Foundation scholarship