Kisan Thapa

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EDUCATION

University of Massachusetts Boston — Boston, MA
PhD in Computer Science — *Sep 2021 - Ongoing*
- Research Interests: Computational Biology, Machine Learning, Graph Neural Networks, Deep Learning

Pokhara University — Pokhara, Nepal
Bachelor of Computer Engineering (GPA 3.8/4.0) [Dean's List 2017] — *Aug 2013 - Sep 2017*

EMPLOYMENT

Graduate Teaching Assistant **University of Massachusetts Boston, Boston** **Sep 2021 - Present**
- Designed and implemented web based visualization tool for causal interactions in biological data, improving responsiveness for large graphs.
- Developed a rank-based transcription factor (TF) activity prediction method.
- Published multiple papers in collaboration with renowned research groups in esteemed scientific journals.
- Leveraged Knowledge in Python, Numpy, Pandas, R, Java, JavaScript, Machine Learning and Deep Learning.

Software Developer **EB Pearls Pvt. Ltd., Nepal** **Aug 2020 - Aug 2021**
- Designed local crowdfunding Android application, impacting more than 5000 beneficiaries by integrating mobile to mobile payment services.
- Refactored Android legacy codes to industry-standard practices, reducing code maintenance time time by more than half.
- Optimized heatmap view in Google Map SDK for a fifty thousand users in local dating mobile app.
- Leveraged Knowledge in Java, Kotlin, Android SDK, JUnit, Espresso, DI, AWS S3, Firebase, Jira, C++, Google Map.

Software Developer **Rooster Logic Pvt. Ltd., Nepal** **Nov 2017 - June 2020**
- Resolved more than 20 issues in the Sukarmi, a local survey android application, leading to a threefold reduction in survey completion time per user.
- Created an issue tracking system using Android development and Node JS server for rainwater harvesting plants for households, resulting in a 80% reduction in issue resolve time.
- Leveraged Knowledge in Java, Android SDK, Node JS, JavaScript, Firebase, Unit Testing, Rest API, Project Management.

PROJECTS

- Personal Website: https://kisanthapa.github.io/ (for additional information and projects)
- **CausalPath Web Server** (https://causalpath.cs.umb.edu/): Interactive visualization tool for causal interactions in biological data.
  - Replace the Cytoscape.js library with the robust Newt library to render biological interactions, subsequently enhancing rendering speed and enabling seamless interactivity.
  - Utilized: JavaScript, HTML, CSS, Node JS, Git, Chrome Dev Tools.
- **Gene Mutation Classification** Report | GitHub
  - Build a machine learning classifier utilizing TCGA data to distinguish between mutated and non-mutated genes, resulting an accuracy rate of approx 92%.
  - Utilized: Python, Tensorflow, Jupyter Notebook, Numpy, Pandas, scikit-learn, Google Colab.
- **Firebase Chat Application** https://github.com/KisanThapa/Connect.git
  - Developed a real-time Android chat application using Java and Firebase, enabling users to engage in one-to-one or group conversations with friends.
  - Utilized: Java, Gradle, Android Studio, Firebase, Rest API, Kotlin, XML.

SKILLS

Software: *(proficient)*: Python, Java, Kotlin, JavaScript, Git, npm, Machine Learning, Deep Learning, Android App Development, Rest API *(good at)*: Node JS, React JS, C, C++, SQL, HTML/CSS, Pandas, Numpy, Django, Tensorflow, OpenCV, TypeScript