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Cover Letter

Respected Professor,   May 24, 2022

I sincerely request to consider my application and evaluate my suitability for the postdoc position at your esteemed research group to work on *"**Designing mobile-friendly cartograms for visualizing geospatial data**"*

After thorough reading and understanding, **the data visualization and cartograph**y interface research stream greatly interest me to take up a postdoc fellow position.

Although superficially my current research might not look like a straight fit. However, I would like to emphasize my high level of interest in joining your group on the following grounds.

Experience in human-computer interaction research:

I am a recent Ph.D. graduate in computer graphics and virtual reality. During my research, I have had hands-on experience in handling a few user-interaction devices such as VIVE HMD, base stations, controllers, pupil labs eye tracker, Motion capture system (MoCap), and sensing systems like Lidar. I was a part of several major projects to sense human activity and behavioral aspects that are used for visual analysis and activity recognition.

Technical Competencies in research areas in line with data visualization:

I am one of the top contributors to the visualization toolkit (VTK), an open-source project supported by Kitware® Technologies and hosted on Github. I have a fair amount of knowledge to find intuitive ways to visualize data. I was part of a major project to visually analyze subtle variations of IMU-based Motion Captured data in real-time. I recently completed **Google Data Analytics Specialization Certification** authorized by Google.

Programming Languages skills required for software development:

With my research experience, am capable of independently developing software application systems and am well aware of version control and issue tracking over platforms like GitHub. I have expertise in API development using C++. I am comfortable using web development toolkits to build and maintain web interfaces using HTML, **Javascript**, **Python**, and **PHP-MySQL** to connect to databases. Familiar with **R studio**, **Tableau**, and **Tableau Prep builder**. During my previous research, I developed an application system to author and edit human motion data. It comprises several modules such as virtual avatar-based motion reconstruction, motion retargeting, and 3D Sphere-based human motion visualization.

Research Publication skills:

I was fortunate to publish and present a few of my novel works in journals and conferences such as IEEE Access, Sensors, Applied Sciences, IEEE VR, and ACM SIGCHI. With a great interest to contribute to the academic and research community, I have involved myself in research article reviews, technical talk delivery, project mentoring for undergraduate students, and consistent participation in various technical skill development programs.

Thus, with all my research and academic experience so far, I am confident to continue my research at your esteemed institute and contribute to my best. It would be an excellent opportunity to join your reputed research group to further shape my career alongside eminent peers.

Sincerely,
Bharatesh Chakravarthi