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I first heard from Vikas Reddy in his first semester at UMBC, when he sent a series of thoughtful emails expressing a genuine enthusiasm for our Brain-Machine Interface Laboratory. When he joined us as a volunteer the next semester, our initial conversation confirmed what his messages had hinted at: he pairs keen research instincts with clear, concise communication. Since then, Vikas has consistently shown the confidence and determination needed to take on—and successfully complete—complex research tasks.

I am an Associate Professor with tenure in the Department of Computer Science and Electrical Engineering at the University of Maryland Baltimore County (UMBC). I am the Principal Investigator of the Sensorimotor Control Laboratory/ Vinjamuri Lab at UMBC. I serve as the center director for NSF IUCRC called BRAIN at UMBC. Supported by National Science Foundation (NSF CAREER award, NSF I-Corps and NSF IUCRC), NIDILRR (SBIR), New Jersey Health Foundation (Research and Innovation grants), United States-India Science and Technology Endowment Fund (Rehab Robotics), and several other internal grants this lab specializes in Sensorimotor Control, Brain Machine Interfaces, Exoskeletons, human-robot interaction and collaboration, and neurotechnologies for mental health. I have received Mary E. Switzer Merit Fellowship from NIDILRR in 2010, IEEE Senior Membership in 2011, Harvey N Davis Distinguished Teaching Award in 2018 from Stevens Institute of Technology and NSF CAREER Award in 2019. I am a visiting scientist at the National Institute on Drug Abuse (NIDA) of National Institutes of Health (NIH). I have a visiting appointment at IIT-Hyderabad, and Manipal Academy of Higher Education, India, and I teach fractal credit courses there in summer and intersessions.

Beyond the lab, Vikas has kept a perfect 4.0 GPA in UMBC's M.P.S. in Data Science while earning a competitive research-assistant appointment in the Computer Science Department. He spearheaded the IndicWiki initiative at IIIT Hyderabad, building a full data-translation pipeline that scraped, processed, and automatically converted more than 10,000 English Wikipedia software articles into Telugu—broadening access to technical knowledge for tens of millions of native speakers and contributing clean, well-documented code to the project's open-source repo. In industry, he interned at EPAM Systems, where he built a Selenium / TestNG automation suite, wired it into Jenkins CI/CD, and tuned deployment scripts—improving test coverage and cutting release-time failures by roughly 30 percent.

Under my supervision in the Vinjamuri Lab, Vikas Reddy has distinguished himself on three demanding projects by pairing technical depth with tireless commitment. He led the development of a multi-modal system that fuses EEG signals and facial cues through transformers and ConvLSTM networks; his willingness to put in late nights pushed the model to a remarkable 97 percent accuracy and secured its publication at the IEEE BSN Conference. He also contributed key ideas and code to EmoFormer, a SegFormer-based framework for real-time facial-emotion recognition. Vikas truly came into his own during our collaboration with Brainwave Science. There, he designed an end-to-end lie-detection pipeline built on custom CNN architectures and a P300 EEG acquisition protocol, iterating through the literature—testing, failing, and refining—until the system reached 81 percent accuracy. He represented the lab in regular progress meetings with the company, translating technical updates into clear action items; the client repeatedly expressed satisfaction with both his clarity and the final results. Vikas's blend of grit, insight, and team-first communication makes him an indispensable contributor to every project he touches.

I therefore give my highest recommendation for Vikas. I strongly believe that his rich and rigorous academic achievements qualify him for excellence. Please reach out to me for further questions. Thank you for your consideration.

Sincerely

V. Ramana Kumar V...

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