Research Lab at VT: Learning Enhanced Watershed Assessment System (LEWAS) Lab

Background of the Lab: The Learning Enhanced Watershed Assessment System (LEWAS) is a unique real-time high-frequency environmental monitoring lab established to promote environmental monitoring education and research at Virginia Tech. The LEWAS lab has a field site, which is located at the outlet of a small creek (Webb Branch) that flows through the Virginia Tech campus. At present, the LEWAS has the following four stages: 1) Instruments in the field site that are used for environmental monitoring including an acoustic Doppler current profiler, a water quality sonde and a weather station taking measurements every 1-3 min., 2) data processing occurring locally on a Raspberry Pi, 3) data storage on a remote server and 4) end user interfaces, which enable users to visualize LEWAS data, e.g., the Online Watershed Learning System (OWLS) (www.lewas.centers.vt.edu/dataviewer) for research and education. An interdisciplinary team of undergraduate and graduate students with diverse backgrounds and skill sets advances and maintains the LEWAS.

LEWAS Website: [http://www.lewas.centers.vt.edu/](http://www.lewas.centers.vt.edu/)

Position: Back end and front end programmer

Requirements: We are currently looking for an experienced VT undergraduate student to help us manage our full-stack infrastructure. The LEWAS provides a holistic view to software development, which include maintaining an API, large database, website / web application, and sensor parsing code at our field site. It’s a hands-on, live production system which is constantly evolving as the needs of the lab change. Applicants should have reasonable proficiency in:

- Multiple programming languages (Python and Javascript preferred)
- Knowledge of designing and structuring a RESTful API
- Basic experience of Linux fundamentals

Compensation: The person will be recruited during the Spring 2017 semester on a voluntary basis and according to performance, the job will be extended to the summer as an hourly wage position.

Contact Information: Please contact Ms. Debarati Basu ([debarati@vt.edu](mailto:debarati@vt.edu)) if you have questions. Also, send Ms. Basu your resume and cover letter, if you are interested in applying.

This advertisement is approved by the LEWAS Lab Director: Dr. Vinod K Lohani