



To Whom It May Concern:

I am providing my recommendation of Andres Cremisini. I had the pleasure of overseeing Mr. Cremisini's work as a fellow during the summer of 2019. During that time, I developed a very high regard for Mr. Cremisini based on the outstanding contributions that he made in the areas of machine learning and natural language processing (NLP) to the Bureau of Labor Statistics' Producer Price Index (PPI) survey. PPI is a *Principal Federal Economic Indicator* (PFEI) that measures price change for domestic producers of goods and services.

Mr. Cremisini joined PPI under the Civic Data Fellowship program Coding It Forward, a student-led nonprofit organization empowering computer science, data science, and design students to pursue careers in public service. During his 10-week tenure in PPI, Mr. Cremisini worked independently to develop NLP code that automatically classifies business-provided product descriptions into their respective PPI industry categories. I was impressed with how quickly Mr. Cremisini gained understanding of the complicated methods and processes PPI employs on our data. In a very short time period, he was able to conduct an accurate environmental scan, assess the potential problems going forward, and develop a plan to address those problems while helping PPI accomplish its goal of creating this classifier.

In addition to independently developing the classifier, Mr. Cremisini worked closely with PPI staff in order to transfer his knowledge so that PPI can continue his important work going forward. He displayed poise and professionalism in one-on-one interactions and a high subject matter expertise when conducting his Python code walk-throughs. Mr. Cremisini also was responsible for multiple presentations to PPI senior management. He excelled as a public speaker and was able to expertly convey complicated machine learning concepts to those unfamiliar with data science. I often received compliments from fellow managers and PPI staff on Mr. Cremisini's work as a fellow here.

As availability of large datasets from our survey respondents becomes more of a reality, PPI lacks the human resources to process all of it. Mr. Cremisini's efforts during his fellowship lays much of the groundwork for what is possible for PPI to achieve with big data using machine learning. Mr. Cremisini routinely impressed PPI management and staff with his poise, professionalism, and work ethic at all aspects of the fellowship. He has demonstrated to me excellence in all that he puts his mind to and leads me to believe there will be no limit to his growth and achievements.

Sincerely,

A handwritten signature in blue ink, appearing to read "Timothy Wu", with a stylized flourish at the end.

Timothy Wu
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