

Data Analysis and Visualization Project

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4/1/2021

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1 Abstract

This project analyzed and visualized the tuition and the fees of University of Central Arkansas (UCA) over the past ten years with LaTeX and Python. The data is received from the UCA's website provided by Finance and Administration of UCA [1]. The graph ?? shows the relationship between the amount of the payment and years with the linear equation 1. Followd with the equation, the cost will increase over years.

2 Discussion

The given data show the tuition and the fees for education at UCA. An upward trend in the tuition and the fees can be seen from the graph except for ones in 2015. Since the amount of the payment is propotional to years, the relationship in the two factors can be expressed as a linear equation.

$$y = 239x - 473685 \quad (1)$$

In this equation 1, x represents years, and y represents dollars. The cost of the tuition and fees will increase over years according to the equation.

3 summary

This project analyzed and visualized the raw data about the transition of the cost of the tuition and the fees in UCA over the past ten years with LaTeX and Python. The graph made by the data showed the relationship between x and y elements with the linear equation. According to the linear equation, the amount of the payment will increase for the future since the x and y elements are propotional to each other.

References

- [1] Members of the Board of Trustees. Final budget-book-board-fy21.pdf, 2020.