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Impact of Coding Proficiency on Starting Annual Salaries After Graduation

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Impact of Coding Proficiency of Graduate International IT majors at PSU on their starting annual salaries after graduation in IT industry

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ABSTRACT

As many companies are going digital in their operations and many startups are driven by software solutions instead of focusing on physical infrastructure, the demand for coding jobs has increased across the globe as it is the programming that drives computer systems. From transport and food to healthcare everything became Information Technology dependent. We can also observe that there is a wide popularity for programming courses, as the coding skills from those courses might fetch high paying jobs. Students who are pursuing their masters in information technology must be good in coding as it will get them a high paying job after graduation. Nowadays many graduate international IT major students are looking for a job in the software industry, which would bring them a high salaried job. Whereas the jobs in the software industries require a candidate with good programming skills, who will play a major role in the growth and development of their company.

This study will determine the impact of coding proficiency of IT major international graduate students at Pittsburg State University, as measured by students Grade in GRT-713 (Computer Programming Languages) on their starting annual salaries after their graduation when they enter the job market. Graduate International Information Technology major students who studied at PSU and have recently entered the job market are included in this study with a sample size of 100 students. In this study, a correlational design is used to establish the relationship between grades in GRT-713 and starting annual salaries.

INTRODUCTION

Coding proficiency has become a cornerstone skill in the contemporary world of accelerated technological progress, paving the road for innovative practices and competitiveness in all living industries. This shift to digitalization has caused an increase in professionals programming experts, as all companies are now more than ever eager to digitalize and digital-system-automate their processes to achieve better work results. Pittsburg State University is a microcosm of this trend, where graduate foreign students specializing in information technology actively try to learn coding to increase the potential for career growth. Thus, it is crucial to understand the relationship between beginning coding skills and new international students' initial salaries at this institution metrology for assessment.

The research project intends to investigate:

Correlation between one's level of coding abilities and their starting wages for recent PSU's international IT student graduates.

By examining these students' grades in courses related to coding, such as GRT-713 , and their job offers, the project will present a comprehensive model of coding abilities and their connection to one's initial job in the IT field.

METHODOLOGY

Coding Proficiency (X) – an independent variable is measured by grade in GRT 713 (Computer Programming Languages)

Starting annual salary (Y) – a dependent variable is measured by annual salaries of the alumni collected from Pittsburg state University Alumni Association.

The study involves 100 participants, who are recently graduated from PSU (students who graduated in Fall 2023 and Spring 2024). These PSU alumni voluntarily participate in this study by providing their GPA in GRT-713 and their starting annual income offering. This study gives insight into how programming plays an important role in securing high paying jobs by analyzing the relationship between GPA in GRT-713 and starting annual salary of graduate international IT major students.

This study collects Quantitative data and a correlational design is being used.

Pearsons correlation coefficient(R) is calculated and a regression analysis is performed on the collected quantitative data.

ASSUMPTIONS

This study assumes that GRT 713 scores earned by students at the university best indicate their coding skills, without the involvement of any other courses which can also indicate their coding skills. This study assumes trends in the job market and social network a student has are constant and does not have effect on the results. The demand for IT professionals and software developers in the job market is assumed to not change with time in this study. The cultural identity, physical and mental health of the student is assumed to have no effect on their grades in GRT 713. So, international student background and health are kept constant. It is assumed that the past educational majors and professional experiences of international students do not hinder their grades and annual salaries. Teaching methods of coding course is assumed to be constant in this study. As programming languages are same in United states and India, it is assumed to have no effect in this study.

LIMITATIONS

The current study focuses on Masters in Technology IT (Information Technology) major students and includes only students who have GRT 713 course in their transcript. Students who did not take this course but have CIS 715 (Database Management Systems) and any other programming related courses are not included in this study. As starting annual salaries are obtained after graduation, the scores of some students who are not interested in IT jobs, students who settled in business and management fields after graduation and students who continued their education after graduation were not involved in this study. The annual salaries data gathered from alumni might not be accurate and true as some may falsely hide their true annual salaries which might be very low. Coding skills of students may not only depend on the score obtained in GRT 713 as it covers only 3 basic coding languages but there are more coding languages where many students could excel in, which are not included in GRT 713. It did not include international student perspectives regarding their interest and time limit for the assignments in GRT 713, whose grades measure coding proficiency in this study.

RESULTS AND DISCUSSION

Positive Correlation. If the study suggests a statistically significant positive correlation between coding proficiency measured by GRT-713 grades and the level of starting annual salary among PSU' S graduate international students, it hints coding coursework excellence is linked with higher future compensation. Accordingly, programming in graduate school skills significantly influences the first-year job financial outcomes.

No Correlation. No significant correlation exists may be, according to the analysis of the study, between how well PSU' S graduate international student in IT performed at coding measured by grades for GRT-713 and their future starting salary. Other factors unrelated to coding coursework achievement at the university is a significant income determinant.

Negative Correlation: There is a possibility that the study will reveal a negative correlation between the level of coding proficiency and starting salaries some of the time. Understanding the cause of such a relationship will require looking into possible determinant factors such as industry-specific requirements or the presence of an alternative specialty that employers value more.

Mediating Factors: Additionally, mediating variables can include work experience, extracurricular endeavors, and the impact of the home country .

Therefore, the project results can be beneficial to both students and educational institutions to support career prospects.

CONCLUSIONS

To conclude, the present research study has offered important knowledge regarding the linkage between coding proficiency and starting salaries for international graduate IT students enrolled at Pittsburg State University. Based on the examination of coding-oriented class performance and final remuneration outcomes, the following major discoveries were made. Even though the direct connection between coding proficiency and starting salaries remains unique in each case, the provided research still emphasizes the ultimate significance of programming talent on the early career pathway in the groundbreaking field of the IT sphere.

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