



**SDSU**  
presents  
**MS Computer Science**  
**THESIS DEFENSE**

Thursday,  
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12:00pm GMCS 418

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# KIRTI GUPTA

*Current Employment Statistics for CS Graduates and Forecasts  
Thereof*

## Abstract

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It is always convenient to get a job either near where we graduated or where we grew up - places which we are familiar. However, in some USA states there are tech companies, and startups with tremendous job opportunities, but still, the graduate moves to a different state.

The purpose of this thesis is to predict the preferred locations of the graduate students from computer science and to find the impact of tech industries payroll, wages and job employment opportunity on C.S. post graduate. Logical Regression model and ARIMA model have been used to predict the first preference location of students after graduation. The survey covers nine states and 25 universities of United States of America.

A web application has been designed using JQuery, HTML, JSON, CSS, and JavaScript. The predicted value for preferred location, tech industries, payroll, wages and job employment was plotted on a world map. The application provides a way to select the year and then to view the data values of that year by hovering the mouse over that state. The user can similarly see all the forecast values and R plots by clicking on that state. Any standard web browser can run this application. Maps are executed to make the application further responsive to the user.

## Thesis Committee

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Carl Eckberg, Thesis Chair, Department of Computer Science  
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Mark Dunster, Department of Mathematics & Statistics