**Jyothi Chava**

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**Education**

Ph.D Curtin University, Perth, Australia 2017

M.Tech Indian Institute of Technology Delhi, Transportation Engineering 2009

B.Tech Acharya Nagarjuna University, Civil Engineering 2007

**Professional Experience**

2017-Presen Gratis research scholar

Florida Atlantic University

2013-2017 Doctoral research scholar

Curtin University Sustainability Policy Institute (CUSP), Curtin University

2012-2013 Transport Planner

Center for infrastructure Sustainable Transportation and Urban Planning (CiSTUP), Indian Institute of Science (IISC)

2010-2012 Project engineer

iTrans, Technology Business Incubator Unit, IIT Delhi

2009-2010 Project Scientist

TRIPP, IIT Delhi

**Key Qualifications**

* Extensive experience in applying data science techniques in transportation and real estate domain using R, Python, Spark and Tableau.
* Profound experience in developing predictive models using various machine learning algorithms include linear regression, logistic regression, decision trees, random forest, XGboost, support vector machine learning, K-NN, Naive Bayes and geographically weighted regression models in R and Python (scikit, pandas and NumPy).
* Good at analyzing Big data using PySpark and developing deep learning algorithms using TensorFlow, Keras libraries in Python.
* Thorough knowledge in database construction/management (SQL) and data visualization using Tableau and matplotlib, ggplot packages.
* Experience in unsupervised machine learning algorithms (K-means Clustering) for cluster computing.
* Experience in time series analysis, web scraping, stochastic and numerical simulations, and natural language processing.
* Thorough knowledge in applying transportation, spatial analysis, econometric, statistical modeling software to assess the impact of transportation infrastructure projects on real estate, equity and mobility; analyze the impact of social inequity on public transit ridership; developing models to predict gentrification; forecast travel demand and congestion levels; analyze the economic and environmental viability of infrastructure projects.
* Experience in project management, working with diverse teams to complete several projects including maintaining working relationships with government entities, consultants, government organizations and academicians onshore and offshore.
* Experience in writing peer reviewed journal publications, conference papers and detailed project reports; preparing presentations for national and international conferences; and reviewing journal articles, graduate, and postgraduate thesis.

**Publications:**

Journal Publication:

* Chava J., Newman P., and Tiwari R. (2018) Gentrification in New Build and Old Build Transit Oriented Developments: The Case of Bengaluru. Urban Research & Practice, DOI:10.1080/17535069.2018.1437214.
* Chava J., Newman P., and Tiwari R. (2018) Gentrification of station areas and its impact on transit ridership. Case Studies of Transport Policy, DOI:10.1016/j.cstp.2018.01.007.
* Chava J and Newman P (2016) Stakeholder Deliberation on Developing Affordable Housing Strategies: Towards Inclusive and Sustainable Transit Oriented Developments. Sustainability, 8(10), Available from: <http://www.mdpi.com/2071-1050/8/10/1024/htm>
* Conference paper:
* Renne J., Chava J., Appleyard B., and Tolford T. (2018) Post-Recession Rental Market Dynamics in Transit Station Areas, in: ACSP conference. Buffalo.
* Renne J., Chava J., Appleyard B., and Tolford T. (2019) Post-Recession Rental Market Dynamics in Transit Station Areas, in: 35th American Real Estate Society Annual Meeting. Arizona.
* Jain H., Tiwari G., and Chava J., 2010. Bicycle Network Assignment Model Based on the Land Use Aspects in Indian Context, in: XVI Pan-American Conference of Traffic and Transportation Engineering and Logistics. 15th-18th July, Lisbon, Portugal.
* Manuscripts under review
* Chava J., Renne J., Modelling Transit-Induced Gentrification in Proximity to New Stations, submitted to Journal of the American Planning Association (manuscript ID is RJPA-2020-0018).
* Chava J., Renne J., Transit Oriented Development and Gentrification in the Florida East Coast Railway Corridor: A Tool for Analyzing Affordable Housing Investment Locations submitted to Housing Policy Debate.
* Renne J., Chava J., Appleyard B., and Tolford T. (2018) Post-Recession Rental Market Dynamics in Transit Station Areas.
* Manuscripts under progress
* Advanced data science techniques to address data issues in developing countries

Coauthor: Prof Karen Chapple, University of California, Berkeley

* Data science techniques to improve public transit reliability: The case of Visakhapatnam, India
* Journal Manuscripts peer reviewer (<https://publons.com/researcher/1391936/jyothi-chava/peer-review/>)
* Journal of Planning Education and Research
* Utilities Policy
* International Journal of Environmental Research and Public Health
* Sustainability
* Case Studies on Transport Policy
* Transportation Research Part D: Transport and Environment
* Habitat International
* Invited Speaking Engagements

2018 Gentrification and its impact on transit ridership: The case of Bengaluru, 314B Wurster Hall, University of California, Berkeley (September 11, 2018)

2020 Advance data science techniques for sustainable transportation planning, “Civil Engineering Research – A Step Forward” (May 28, 2020)

**Skills**

* Transportation planning packages: TransCAD, Vissum, Synchro, Aimsun, Vissim, GIS, AutoCAD.
* Data science programming language: R, Python, Spark, SYSTAT, SPSS.
* Computer Programming language: SQL, C.
* Data analysis and visualization tool: Tableau, Matplotlib, ggplot.