Avantika Mudumbai

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CONTACT

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EDUCATION

INTERNATIONAL INSTITUTE OF INFORMATION TECHNOLOGY
Bangalore
Integrated MTech in CSE
2019 - Present
CGPA: 3.25/4

FIITJEE JUNIOR COLLEGE
Hyderabad
Senior Secondary Education
2017-2019
TSBIE: 92%

CHIREC INTERNATIONAL
Hyderabad
Highschool
2015-2017
CGPA: 10/10

SKILLS

- R • Data Analysis • Tidyverse
- Geospatial Analysis (R, Python, ArcGIS)
- Version Control, Git/Github
- Data Visualization • Biostatistics
- Regression Analysis • Open Science
- Experimental Design • Teaching
- R Markdown • LaTeX • Shiny
- Open Source Development in R
- Web Development • SQL

AWARDS

- Data Science for the 21st Century: National Science Foundation Research Traineeship ($32K, 2015-2017)
- Outstanding Graduate Student Instructor Award, UC Berkeley 2018
- Letter of Commendation for Excellence in Teaching, Univ. of Alberta 2012

PUBLICATIONS

For full list of my publications, please see Google Scholar 🎓

EXPERIENCE

RSTUDIO | Software Development Intern • Tidyverse Team
June 2018 – Aug 2018 | Remote
- Participated in open source R development for ggplot2 ⊙ (486K downloads/month) and scales ⊙ packages
- Learned the internals of a large existing codebase to resolve issues, submit bug fixes, add new features, write tests, and update documentation to provide better functionality for user-defined scales, themes, and aesthetics manipulation during data visualization in R.

GOOGLE | Quantitative Analyst Intern • GeoData Analytics Team
May 2016 – Aug 2016 | Mountain View, CA
- Explored impressions data for millions of features in the Google Maps database using Dremel, R
- Assessed average time to impressions maturity for novel business features using hazard models.
- Fit mixed effect regression models and evaluated model capacity for predicting impressions of novel business features based upon spatial relations with mature features.

RESEARCH

Graduate Student Researcher | UC Berkeley
- Developed an R package to streamline best practices in exploratory data analysis for animal movement data.
- Developed an R Shiny application for updating spatial risk maps of infectious disease using rare events logistic regression & spatial libraries in Python and R. 🌐⊙
- Built spatiotemporal models estimating disease prevalence and spread using a hierarchical Bayesian framework in WinBUGs and R.

Southwest Alberta Montane Research Project 🌐
- Designed database and analysis flow for foraging & movement data from 182 radio-collared elk - totaling 856K cleaned GPS samples.
- Implemented multivariate regression analyses in R, including mixed negative binomial regression and paired conditional logistic regression

TEACHING

Visiting Instructor | Hong Kong University
January 2018 | Movement Ecology in R Workshop
Co-developed and led an 8-day workshop teaching ecological methods of spatial and movement analysis in R & RStudio. 🌐⊙

Data Science Instructor | UC Berkeley
Fall 2017 ESPM 157 • Spring 2018 ESPM 288
Taught upper division course teaching collaborative & reproducible data science including programming in R & RStudio, relational databases, data management, version control, remote data and APIs, cloud computing, & R Markdown. 🌐⊙

Biostatistics Instructor | UC Berkeley
Fall 2015 ESPM 173
Taught upper division biostatistics course including basic hypothesis testing, probability, experimental design, linear models, and programming in R & RStudio.