Chittaranjan Velambur Rajan

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Education

- **University of Michigan** — Ann Arbor, Michigan
  M.S. in Applied Statistics; Current GPA: 3.53/4.0 — *Aug. 2021 – May. 2023*
  Statistical Learning, Data Science with Python, Probability Distribution Theory

- **PES University** — Bangalore, Karnataka
  B.Tech in Computer Science; GPA: 9.08/10.0 — *Aug. 2014 – May. 2018*
  Data Analytics, Machine Learning, Cloud Computing, Design Patterns

Tools and Technologies

- **Languages**: Python, R, Java, Javascript, C/C++ **Technologies**: AWS, Docker, Kubernetes, Git
- **Libraries**: Pandas, Jupyter, Tensorflow, Numpy, Scipy **Frameworks**: Java Spring, React

Work Experience

- **Nasdaq** — Bangalore, Karnataka
  Software Developer Specialist (New Markets Financial Framework) — *Nov 2019 - July 2021*
    - **Blockchain**: Integrated trading solutions with a ledger to facilitate real-time settlements
  Senior Software Developer (New Markets Financial Framework) — *July 2018 - Nov 2019*
    - **Trading Solutions**: Built a marketplace for a healthcare client, to enable trade of patient health data
  Summer Intern (Globenewswire) — *June 2017 - July 2017*
    - **Neural Network**: Predicted an optimal time for clients to publish their press release, for maximum viewership
- **Center for Knowledge Analytics and Ontological Engineering** — Bangalore, Karnataka
  Research Intern – Quantification of Cricketer Versatility — *May 2016 - July 2016*
    - **Publication**: S. Radhakrishnan, **C. Velambur** and K. Mahesh, "V Score —A Data Analytical Versatility Metric For Cricket," 2018 International Conference on Advances in Computing, Communications and Informatics (ICACCI), 2018, pp. 1569-1573, doi: 10.1109/ICACCI.2018.8554729. (source)

Projects

- **AI Based Musical Assistant for Pianists**: [CNN, N-Grams, MIDI APIs, source]
    - **Prototype**: Leveraged rules from music theory and ML models to improve self-efficacy in novice pianists
- **Analysis of trends in Competitive Coding**: [EDA, Visualization, Web-Scraping, source]
    - **Analysis**: Explored whether problem solving skills (in competitive coding) are an acquired or developed trait
- **Determine complexity of coding problem**: [LSTM, Neural Networks, source]
    - **Objective**: Used ML/DL to determine the complexity of a competitive coding problem, given a text prompt of the question (Accuracy: 60% for 3-way classification)
- **Query-able Indexes for Zoom meetings**: [AWS Lambda, Transcribe, S3, API Gateway]
    - **Hackathon**: Made Zoom meetings searchable for information presented in the recording
- **Face Recognition for Social Events**: [AWS Lambda, Rekognition, S3]
    - **Hackathon**: Filtered only relevant pictures for a user from a large collection of images
- **Voice Controlled AR-VR experience generator**: [AFrame, Google Speech-To-Text]
    - **Hackathon**: Used voice commands to build scenes viewable with VR headsets

Teaching Experience & Invited Talks

- **Python Instructor**: Section Leader for Stanford's "Code In Place" MOOC (2021)
- **Principles of Software Engineering**: Invited Speaker at IISc (2019)
- **Web Dev with React**: Guest Lecture @ PES University (2019)
- **Teaching Assistant**: Advanced Algorithms, with CLRS (2017)