

Aman Bagrecha

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EXPERIENCE

ThinkTac, Malleswaram— Educator (June 2018 – August)

Applied laws of physics to make a Catapult and was tasked to maximise range with available tools. Furthermore, I was assigned to document them and make a video for the same.

Avenue Magazine, ASCE—writer (June 2018)

Have written articles pertaining to Grid Planning, Ganges rejuvenation, Bengaluru lakes in the annual magazine, *The Avenue*

President, ASCE Student Chapter (Feb 2020-Present)

ASCE Student Chapter RVCE is technical club for civil engineering students

EDUCATION

R.V college of Engineering, Bengaluru, India— B Tech. (2017 - 2021)

GPA : 8.94; Pursuing Bachelors in Civil Engineering

Bangalore International Academy, Bengaluru— High school (2015 – 2017)

Studied Science with 90.4 % in CBSE 12 boards.

Nandi International School, Bellary— Primary and secondary (2001 – 2015)

CGPA: 10, captain of the 'emerald' house.

PROJECTS

Concrete Ball— Lightest amongst competitors

With density 1300 kg/m³, a concrete ball was made with fly ash, GGBS, Pumice Stone as cementitious materials. [Project Link](#)

Analyse professional degree student enrollment v/s university count for Indian states— Data Analysis using python (Jun 2020)

To evaluate the trend in higher education over the years based on gender, state, and degree program. Further identify which state requires additional university in the Indian State. [Project Link](#)

Atharva— Concrete canoe competition (Jun 2019 – Oct 2019)

Designed the hull of 2-meter-long concrete canoe and analysed both hydrostatic and structural robustness using maxsurf and SAP2000. The canoe had an estimated capacity of 200 kilograms while staying afloat. [Project Link](#)

structural optimisation of RCC beam— excel automation (Oct 2019 – Present)

Automated the design process of computing beam cross section with Microsoft Excel and optimized the section using brute force algorithm in MATLAB. Currently working on automation of column design.

Impact analysis of Ozone concentration— ArcMap, ArcGIS (June 2020)

Hypothesised if ozone concentration depends on elevation. Interpolated the ozone values at air quality stations in California and tested the hypothesis. [Project Link](#)

Land Surface Temperature of Bengaluru— ArcMap, ArcGIS (July 2020)

Calculated the Land Surface temperature of Bengaluru city using Landsat 8 thermal band product. The procedure applied here was using Maximum likelihood classification and then assigning emissivity.

[Project Link](#)

Website for ASCE Student Chapter RVCE- HTML, CSS (July 2019)

Built a website using HTML and CSS with bootstrap framework. [Project Link](#)

Organise records using Excel VBA- excel, VBA (July 2019)

User form to organise data on spreadsheet using excel VBA. Add, delete and search functionality included. [Project Link](#)

PUBLICATIONS

Feasibility Study of Floating Solar Panels over Lakes in Bengaluru City

Second ASCE India Conference, CRSIDE 2020 (March 2020)

Solar output assessment and estimation of evaporation losses for Floating solar Photovoltaic cells.

[Publication Link](#)

EXTRACURRICULAR ACTIVITIES

Shasan Seva Group— Social service (Dec 2014- present)

Organisation of teenagers helping the underprivileged by providing food, clothes. Educycle- collecting old books and providing them to the needy | Education- weekly basic mathematics classes. | VASTRA DAAN- donating clothes to the underprivileged on occasion of Diwali. [SSG](#)

PROGRAMMING LANGUAGES

Python | JavaScript | PHP | SQL

INDUSTRY KNOWLEDGE

Data Analysis, Remote Sensing
Geographic Information Systems,
Machine Learning, Web development

TOOLS

Excel VBA | MS Excel | Quantum GIS |
ArcMap ArcGIS | Google earth engine |
Adobe InDesign | AutoCAD | MATLAB

SOFT SKILLS

Communication, critical thinking, writing,
documentation.

CERTIFICATION

Excel/VBA for Creative Problem-Solving
Specialization
Python for Everybody Specialization
GIS Data Formats, Design and Quality
Imagery, Automation, and Applications
MATLAB programming for numerical
computation
Applied Plotting, Charting & Data
Representation in Python
Geospatial and Environmental Analysis
Data Analytics with Python (12 Weeks)
Computer Aided Applied Single Objective
Optimization (8 Weeks)
Introduction to Data Science in Python
The Data Scientist's Toolbox
Fundamentals of GIS
Building Web Applications in PHP
Applied Machine Learning in Python
Understanding and Visualizing Data with
Python
Convolutional Neural Networks in
TensorFlow
Introduction to TensorFlow for Artificial
Intelligence, Machine Learning, and Deep
Learning
SQL for Data Science
Introduction to Machine Learning

LANGUAGES

Kannada, Hindi, English.

TEST SCORE

Cleared JEE ADVANCED (May 2017)

Scored 183/306 with all India rank of 9562
for the joint entrance exam-advanced