



# Charlene Mncube

## About

Experienced Civil Engineer with demonstrated programming, data management, and problem-solving skills with proven ability to work independently and collaboratively to achieve organizational goals. Passionate about developing innovative solutions and strategies to assist with complex business problems in a dynamic, engaging, and purpose-driven environment.

## Experience

### Zutari (Aurecon Seconded) - Civil Engineer (Transportation) Global Design Centre

Pretoria, Gauteng

February 2020 – Current

- Analyzed topographical and geological data, survey reports, maps, and blueprints to effectively plan infrastructure projects using GIS and Project Management tools.
- Accurately designed and drafted specifications and requirements for transportation projects using AutoCAD, 12d model and Synergy, Navisworks, Bluebeam
- Reviewed calculations and analyzed data to compile technical reports.
- Coordinated project delivery with colleagues to ensure the final output was to the required standard.
- Liaised with clients in Australia and New Zealand to ensure a good relationship was maintained.

✉ charle.mncube@gmail.com

in <https://www.linkedin.com/in/charlene-mncube/>

🐙 <https://charlenemncube.github.io/Charlene.Mncube.github.io/>

☎ +27 72 669 1997

📍 0042, Pretoria, GP

## Education

May 2020

**Bachelor of Engineering in Civil Engineering Sciences (Honors)** University of Johannesburg  
**NQF Level: 8**

**Dissertation:** Impact of the Fourth Industrial Revolution on the Civil Engineering Industry

December 2020

**National Certificate 48872: IT Systems Development**

Explore Data Science Academy

**NQF Level: 5**

**Relevant Coursework:** Data Gathering and Management, Analytical Programming, Data Visualization, Machine Learning, Model Deployment

December 2014

**National Senior Certificate**

Wendywood Highschool

## Explore Data Science Academy - Data Science Student

Johannesburg, Gauteng

January 2020 – December 2020

- Designed and managed a database on Eskom's future demand using historical data.
- Created a dashboard using visualization tools to determine Eskom's future electricity demands.
- Used regression techniques to predict accurate arrival times of a package for a logistics company.
- Used classification techniques and Natural Language processing techniques to classify a person's beliefs in climate change using their novel twitter data.
- Clustered unsupervised data on movie recommender algorithms
- Presented findings using various communication tools.

## University of Johannesburg - Undergraduate Teaching Assistant

Johannesburg, Gauteng

July 2019 – December 2019

- Assisted lecturer with classroom management and coordination, prepared lessons, proctored assignments, and tests and provided grades according to university standards.

---

## Services and Affiliations

- McKinsey Forward Africa Program | Participant | 2021-2022
- Engineering Council of South Africa | Candidate Engineer | 2021-Present
- McKinsey Women in Engineering | Cohort Alumni | 2022-2022
- Aurecon Roads Learning Week | Future Week Presenter | 2021-2021
- StudieTrust | Student Mentor | 2019-2021
- Microsoft Safe@Home Hackathon | Team Member | 2020-2020
- UJ Civil Student Society | Student Member | 2017- 2019
- BIMcommUNITY Africa | Member | 2020-Present
- Investec World-Readiness Program | Alumni | 2018-2018
- Engineers Without Borders | Volunteer | 2017-2019
- Cell C Take a Girl Child to Work | Participant | 2012-2014

---

## Accomplishments

- UJ CIVILS' Exceptional Participation Award -2018
- Concrete Society of Southern Africa Boat Race 3rd place -2018
- Triple Honors in Academics, Service, and Softball - 2014
- SAICA Physics Award - 2013

## Skills

### Data Science and Miscellaneous

**Technologies:** Data Science Pipeline (Gathering, Cleansing, Wrangling, Exploring/Visualization of data), SQL, MS Power BI, HTML, EDA, ETL, Time Series Analysis, APIs, AWS, Statistics, Git, MS Office

### Programming languages: Python

Machine learning: Python (e.g., NLP, Sci-Kit Learn, NumPy, Pandas, Matplotlib)

**Engineering:** Problem Solving, Reasoning, Design Thinking, Investigations, Experiments and Data Analysis, Application of Scientific and Engineering Knowledge, Professional and Technical Communication, Independent Learning Ability, Engineering Professionalism, Team, and Multidisciplinary Working

### Business Analysis/ Consultive Skills:

Problem Solving, Structred and Strategic Thinking, Self Leadership, Impactful Communication, Design Thinking, Digital Literacy, Mentoring

**Interpersonal:** Adaptable, Resourceful, Reliable, Resilient, People- Centric, Conscientious, Intellectually Inquisitive

---

## References

Available upon request