

# Prince Asumadu

📍 Kumasi - Ghana

✉️ [pasumadu6@st.knsut.edu.gh](mailto:pasumadu6@st.knsut.edu.gh)

☎️ 0548 24 70 98

🔗 [portfolio](#)

🔗 [eurus08](#)

## Research Interest

---

- Scientific Computing
- Machine Learning
- Numerical Analysis
- High-Performance Computing
- Optimization
- Graph Theory

## Education

---

- MPhil National Institute of Mathematical Sciences (NIMS-KNUST) GHANA,** Jan 2025 – Present  
Scientific Computing and Industrial Modelling
- **Coursework:** Scientific Computing, Advanced Linear Algebra, Machine Learning, HPC ...
- BSc Kwame Nkrumah University of Science and Technology (KNUST) GHANA,** Sept 2019 – Nov 2023  
Mathematics
- GPA: 3.73/4.0
  - **Coursework:** Linear Algebra, Differential Equations, Functional Analysis, Numerical Analysis, ...

## Research Experience

---

- Optimal Task Allocation using the Primal Simplex Method,** Jan 2024 – May 2024  
*National Institute of Mathematical Sciences, NIMS*
- Built an LP model to allocate tasks to employees
  - Modified primal simplex method to solve model.
  - Performed comparative accuracy analysis and benchmarking on algorithms.
- Dynamic Evacuation Plan Model for a Building Complex,** Apr 2023 – Aug 2023  
*Department of Mathematics, KNUST*  
*Supervisor: Prof. Peter Amoako-Yirenkyi*
- Created network graph for case study building complex.
  - Built a dynamic shortest-path model based on network graph.
  - Ran Simulations for different hazardous scenarios.

## Teaching and Work Experience

---

- Adepts Ghana,** Kumasi  
Part-time Database Developer 2024 – Present
- Design and build databases for projects as part of the database team.
  - Maintain databases for live projects.
- Department of Mathematics (KNUST),** Kumasi  
Teaching Assistant Jan 2024 – Dec 2024
- Tutored students in differential equations and numerical analysis courses.
  - Instructed and graded lab sections on openmp and MPI with C.

**National Institute of Mathematical Sciences,**

Research Assistant

Kumasi  
Jan 2024 – Aug 2024

- Performed statistical surveying and code testing for ongoing research at the institute.
- Conducted individual research project on employee scheduling.

**Ghana Ports and Harbor Authority,**

IT Department, Intern

Tema  
Oct 2022 – Dec 2022

- Fixed software and hardware issues on staff computers.
- Monitored and set up LAN connections, Wi-Fi, and fibre optics.

**Manhyia Hospital,**

Research Department, Intern

Kumasi  
Oct 2021 – Nov 2021

- Performed daily statistical analysis on out-patient department.
- Conducted individual project on staff satisfaction at the hospital.

**Kumasi Academy,**

Substitute Teacher

Kumasi  
Aug 2020

- Instructed students on elective mathematics in online sessions.

## Computational Skills

---

**Languages:**

- Python (Scikit-learn, PyTorch, Numpy, Pandas, Altair, Seaborn)
- C/C++
- $\text{\LaTeX}$
- R
- SQL (PostgreSQL)

**HPC/Scripting:**

- MPI
- OpenMP
- CUDA
- HTML / CSS
- Shell scripting (Bash)

**Others:**

- Git / Github
- SPSS

## Awards and Scholarships

---

**SCIM Scholarship** National Institute of Mathematical Sciences

2025 - 2026

## Training and Conferences

---

- High Performance Computing for Sustainable Development
- Deep Learning Indaba
- Data Science Change Workshop: Uniting Academia & Industry
- Indaba X: Ghana Data Science Summit

April 2023  
September 2023  
December 2023  
October 2024