

# Sujit Debnath



🏠 Peterstraße 36, 90478 Nürnberg    🌐 [sujitdebnath.github.io](https://sujitdebnath.github.io)  
✉ [sujit.debnath.bd@gmail.com](mailto:sujit.debnath.bd@gmail.com)    🐙 [github.com/sujitdebnath](https://github.com/sujitdebnath)  
☎ (+49) 157 31158609    💼 [linkedin.com/in/sujit-debnath](https://linkedin.com/in/sujit-debnath)

## Education

<b>M.Sc. in Artificial Intelligence</b> ; CGPA: 1.8 (DE) <i>Friedrich-Alexander-Universität Erlangen-Nürnberg</i> – Erlangen, DE	2021 – 2025
<b>B.Sc. in Computer Science &amp; Engineering</b> ; CGPA: 1.3 (DE) <i>North South University</i> – Dhaka, BD	2015 – 2018
<b>Higher Secondary Certificate</b> (Science); GPA: 1.0 (DE) <i>Dhaka College</i> – Dhaka, BD	2011 – 2013
<b>Secondary School Certificate</b> (Science); GPA: 1.0 (DE) <i>Rampura Ekramunnesa Boys' High School</i> – Dhaka, BD	2009 – 2011

## Experience

<b>Data Quality Manager</b> (Working Student) <i>CheckMyBus GmbH</i> – Nürnberg, DE	Oct 2024 – Present
<ul style="list-style-type: none"><li>• Ensure high data integrity via regular quality checks &amp; CMS integration from different mobility partners.</li><li>• Support Business Operations team with data quality &amp; administrative tasks to ensure smooth workflows.</li><li>• Monitor and analyze KPIs of various mobility partners to optimize service offerings across markets.</li><li>• Collaborate with international teams to maintain accurate, up-to-date global intercity connection data.</li></ul>	
<b>Data Analyst</b> (Working Student) <i>BMW Group</i> – Munich, DE	Jul 2023 – Sep 2024
<ul style="list-style-type: none"><li>• Contributed to Conformity of Production (CoP) digitization project by enhancing analytics workflows.</li><li>• Collaborated with CoP team to develop data dashboards using Oracle APEX &amp; SQL for real-time insights.</li><li>• Aligned with stakeholders to fulfil specific data analytics needs, enabling data-driven decision-making.</li><li>• Utilized MS Excel, Oracle DB &amp; Python to automate data pipeline, optimizing data analysis processes.</li></ul>	
<b>Software Engineer - Automation</b> (Working Student) <i>Elektrobit Automotive GmbH</i> – Erlangen, DE	Jul 2022 – Apr 2023
<ul style="list-style-type: none"><li>• Engaged in a significant project involving emergency update automation for Volkswagen's EV.</li><li>• Investigated automation options, and implemented Python &amp; Bash scripts for flashing automotive ECUs.</li><li>• Utilized GitHub for version control, managed project workflows &amp; documentation with Jira, Confluence.</li></ul>	
<b>Project Coordinator</b> <i>Robi Axiata Limited</i> – Dhaka, BD	Feb 2020 – Jan 2022
<ul style="list-style-type: none"><li>• Created performance reports, including pre-post KPI analysis, worse cell identification and tracking.</li><li>• Developed &amp; optimized SQL queries to efficiently extract and analyze performance data from Oracle DB.</li><li>• Designed and implemented the <i>MS Kaizala</i> Message Alert system using Python, SQL, and REST APIs.</li></ul>	
<b>Lab Officer</b> <i>North South University</i> – Dhaka, BD	Jan 2019 – Dec 2019
<ul style="list-style-type: none"><li>• Conducted interactive lab sessions, and developed comprehensive laboratory materials &amp; curriculum.</li></ul>	
<b>Under-Graduate Assistant</b> <i>North South University</i> – Dhaka, BD	Jan 2019 – Apr 2019
<ul style="list-style-type: none"><li>• Conducted tutorial sessions for students and assisted faculty members in course-related tasks.</li></ul>	


## Publications

- **Bangla Short Speech Commands Recognition Using Convolutional Neural Networks**, *International Conference on Bangla Speech & Language Processing (ICBSLP)*, doi: 10.1109/ICBSLP.2018.8554395.
- **Early Detection of Glaucoma Using Fuzzy Logic in Bangladesh Context**, *2018 International Conference on Intelligent Systems (IS)*, doi: 10.1109/IS.2018.8710490.

## Projects

**Out-of-Distribution (OOD) Detection on Historical-WI Dataset** Oct 2024 – Present

Leading a 5-member research team conducting comprehensive evaluation of multiple OOD detection approaches (e.g., ODIN, MSP, ViM, DICE, GradNorm) using the *ScriptNet Historical-WI dataset*.

**Tech Used:** Python, PyTorch, Scikit-learn, Bash  [github.com/sujitdebnath/fau-projcv-ood-detection-wi](https://github.com/sujitdebnath/fau-projcv-ood-detection-wi)

**Large-scale Differential Gene Expression Analysis in scRNA-seq Data** Oct 2023 – May 2024

Conducted comprehensive scRNA-seq analysis for type 2 Diabetes and MPN disease in case-control studies, involving data retrieval, clustering, cell annotation, DEGs identification, and a web app for visualization.

**Tech Used:** Python, Scanpy, Omicverse, Streamlit  [github.com/sujitdebnath/fau-bionets-project-ws23](https://github.com/sujitdebnath/fau-bionets-project-ws23)

**Advanced Computer Vision: A Five-Project Compilation** Oct 2023 – Mar 2024

Worked on an advanced Computer Vision project comprising five sub-projects, including RANSAC-based image processing, historical writer identification, and basic face recognition systems.

**Tech Used:** Python, OpenCV, Scikit-learn, Bash  [github.com/sujitdebnath/fau-cv-project-ws23](https://github.com/sujitdebnath/fau-cv-project-ws23)

**Impact of Weather and Climate on Bicycle Traffic in Köln** Apr 2023 – Jul 2023

Developed a data engineering and data science project to analyze weather vs. bicycle traffic relationships in Köln, involving ETL pipeline creation, system/component testing, and CI pipeline implementation.

**Tech Used:** Python, Bash, SQLite, GitHub Actions  [github.com/sujitdebnath/fau-data-engineering-ss23](https://github.com/sujitdebnath/fau-data-engineering-ss23)

## Skills

<b>Programming Languages</b>	Python, Java, C++, JavaScript, SQL, Bash
<b>ML Frameworks &amp; Libraries</b>	NumPy, Pandas, Scikit-learn, PyTorch, OpenCV
<b>Databases</b>	Oracle DB, MySQL, MongoDB
<b>Dev Tools &amp; Environments</b>	Git & GitHub, CI/CD (GitHub Actions), Docker, Linux
<b>Productivity Tools</b>	MS Office, $\LaTeX$
<b>Visualization Tools</b>	Oracle Apex, Microsoft Power BI
<b>Project Management</b>	Jira, Confluence

## Achievements

- **BSc Academic Distinction:** Graduated with *magna cum laude* distinction for getting 90% marks at NSU.
- **NSU Board of Trustee Scholarship:** Awarded 25% tuition waiver for academic excellence in BSc.
- **Golden A+:** Achieved the highest GPA of 5.00/5.00 across all nine subjects in SSC exam.

## Extracurricular Activities

<b>Member</b> , <i>NSU Problem Solvers (NSUPS)</i> – Dhaka, BD	2015 – 2016
<b>Volunteer</b> , <i>JAAGO Foundation</i> – Dhaka, BD	2014 – 2015
<b>Community Volunteer</b> , <i>Volunteer for Bangladesh (VBD)</i> – Dhaka, BD	2014 – 2015

## Languages & Hobbies

<b>Languages</b>	English (Proficient), Deutsch (A1), and Bengali (Native)
<b>Hobbies</b>	Reading Books ( <a href="https://www.goodreads.com/sujitdebnath">goodreads.com/sujitdebnath</a> ), Cycling, and Cooking