

# Md Nahid Hasan

## ASPIRING SOFTWARE ENGINEER

nahidhasanraju1999@gmail.com

+1(513)807-5111

Oxford, OH

[Linkedin](#)

[Github](#)

[Portfolio](#)

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### TECHNICAL SKILLS

- **Languages:** Python, Java, Kotlin, C, C++, SQL, HTML/CSS, JavaScript, XML, Assembly, C#, MATLAB, Bash
- **Tools:** Git, Linux, Android, Unity, React.js, Node.js, LaTeX, MySQL, MongoDB, SPM12, Docker, CI/CD basics
- **Concepts:** OOP, DSA, MVC, Unit Testing, Custom UI, Optimization, Agile, System Design, REST APIs
- **Research:** ML/AI (PyTorch, TensorFlow, Scikit-learn, Numpy, Pandas, Matplotlib), Quantum Computing(PySCF, RT-TDDFT, Qiskit), Data Analysis, Simulation, Visualization, Reinforcement Learning, Multi-Agent Systems

### WORK EXPERIENCE

#### Research Intern

May 2025 - Aug 2025

*University of Dayton Research Institute, Dayton, OH*

- Applied RT-TDDFT, DFT, and NTO analysis to simulate electron dynamics in DNA and molecular systems
- Developed Python workflows for parsing and visualizing molecular data (.cube, .sdf) with automated scripts
- Built reproducible pipelines for real-time electron density simulations using PySCF, NumPy, Matplotlib
- Explored quantum computing methods (Qiskit, QuTiP) for molecular modeling and optimization

#### Graduate Teaching Assistant

Aug 2024 - Present

*Miami University, Oxford, OH*

- Instructing and mentoring students in Machine Learning, Artificial Intelligence, and Systems Eng. courses

#### Software Engineer → Senior Software Engineer

Jul 2022 - Jul 2024

*Samsung R&D Institute, Dhaka, Bangladesh*

- Developed two features (About Galaxy Wearable and About Watch) for the Galaxy Wearable mobile app on Galaxy Watch 6 & 7, deployed to 10M+ global users, improving usability and customer experience.
- Enhanced unit test coverage of the WearOS plugin for the Galaxy Wearable app, significantly reducing bugs, improving stability, and ensuring higher code quality across product releases
- Designed and implemented five features (Sound Settings, Display Settings, Advanced Features, Band Rotate, About Band) for the Fit3 plugin, enhancing functionality and boosting device performance

### PROJECTS

#### QuikDel (MSCS Thesis Project)

Aug 2024 - Present

- Developed a hierarchical multi-agent Q-Learning system for urban delivery, reducing distances by up to 25%.
- Built high-throughput simulations handling 13,866+ delivery requests/hour to evaluate system performance.
- Demonstrated notable improved in efficiency, scalability, and real-time coordination in simulated scenarios.
- Manuscript submitted to ACM Transactions on Intelligent Systems and Technology (TIST), under review.

#### Human Activity Recognition

Aug 2024 - Dec 2024

- Built ML pipelines to classify activities from sensor data of 15 users performing 15 activities.
- Trained and compared models including Random Forest, XGBoost, and CNN, achieving top performance.
- Performed data preprocessing, feature extraction, and evaluation using accuracy, precision, and F1-score.

### EDUCATION

#### MSCS in Computer Science

Aug 2024 - May 2026 (expected)

*Miami University, Oxford, OH*

- Major Coursework: Machine Learning, Remote Sensing, Cryptography, Deep Learning, Research Methodology
- Current GPA: 4.00 / 4.00

#### BSc in Computer Science & Engineering

Jan 2017 - Apr 2022

*Rajshahi University, Rajshahi, Bangladesh*

- Major Coursework: Software Engineering, OOP, OS, DSA, Linear Algebra, Algorithms, DSP, Databases
- GPA: 3.78 / 4.00

### ACHIEVEMENTS

- Achieved Professional Level Certification in SW Certificate Test (Nov 2022) and received Excellence Awards (Apr-Jun & Oct-Dec 2023) for outstanding contributions at Samsung R&D Institute
  - Awarded fully funded Graduate Assistantship (GA) with scholarship at Miami University (2024-2026)
  - 3× Dean's List honoree at University of Rajshahi (2018-2020) for outstanding academic excellence
  - Participated in ICPC Dhaka Regional twice, achieving best rank ~50
  - Competed in 10+ onsite programming contests, earning a best rank of 3<sup>rd</sup> place, steadily top performer.
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