

# Mia Mohammad Imran

Department of Computer Science  
Virginia Commonwealth University  
Richmond, VA  
USA

Phone: +18047679456  
Email: [imranm3@vcu.edu](mailto:imranm3@vcu.edu)  
LinkedIn: [imranraad](#)  
GitHub: [imranraad07](#)  
ORCID: [0000-0003-2477-9971](#)  
Google Scholar: [uVCaRjAAAAAJ](#)

## Summary

I am a Ph.D. student in Computer Science at Virginia Commonwealth University, USA. Before starting the Ph.D. program, I have 3+ years of industry experience. Core competencies include software engineering, programming, data science, machine learning, and natural language processing. Skilled in designing, developing, and deploying full-stack applications using Java, Python, PyTorch, and Angular. Published 5 peer-reviewed papers in top conferences and journals such as ICSE (impact factor 11.55), ASE, MSR, and IST (citation: 15).

## Education

<sup>†</sup> *Indicates expected*

- 2020–2024 <sup>†</sup> Ph.D., Computer Science, Virginia Commonwealth University, USA  
Thesis Title: Exploring Emotions in Open-Source Software Developers' Communications.  
Supervisors: Dr. Kostadin Damevski
- 2012–2016 B.Sc., Computer Science and Engineering, University of Dhaka, Bangladesh

## Experiences

- 2020–2024 Graduate Research Assistant, Computer Science, Virginia Commonwealth University  
See more in the 'Publications' section.
- Used Methodologies:** Data curation and annotation, Emotion model development, Prompting, Devising data augmentation strategies, Cluster analysis, Quantitative analysis, Qualitative analysis, Language model evaluation, Language model fine-tuning, Manual error analysis, Interview conduct, and Survey conduct.
- Used Technologies:** LLMs, LSTM, Lucene, SVM, Streamlit, p-test, BLEU-score, Clustering (K-means and DBSCAN), PyTorch, Tensorflow, Huggingface, LangChain, OpenAI, Pandas, SpaCy, NLTK, Scikit Learn.

- 2020–2022 Graduate Teaching Assistant, Computer Science, Virginia Commonwealth University  
See more in the ‘Teaching Assistant’ section.
- 2022 Software Engineering Intern, Google LLC, Kirkland, USA  
**Role Description:** Worked on a Transfer Learning based project. Investigated why TensorFlow TFCO (TensorFlow Constrained Optimization) library does not work well on a particular scenario.  
**Used Technologies:** SQL, Python, Pandas, Jupyter Notebook.
- 2023 Data Science Intern, VCU Health (Wellbeing Lab), Richmond, USA  
**Role Description:** Worked as a data science intern on a well-being project for at-risk college students using Passive Smartphone-Sensing and Ecological Momentary Assessment (EMA).  
**Used Technologies:** SQL, Dbeaver, Python, Pandas, Jupyter Notebook.
- 2019 Software Engineer, Impel IT Solutions, Dhaka, Bangladesh  
**Role Description:** Designed and developed risk management and valuation software (backend and frontend).  
**Used Technologies:** Java, Spring, Angular, MySQL.
- 2018–2019 Software Engineer, AnyConnect Private Limited, Dhaka, Bangladesh  
**Role Description:** Designed and developed an Android app for an IoT system using a RESTful architecture that can send and receive images, and stream with another smartphone or Raspberry Pi.  
**Used Technologies:** Java, JIRA, Gerrit, Logcat, Glide, EventBus.
- 2016–2018 Software Engineer, IPVision Canada Inc, Dhaka, Bangladesh  
**Role Description:** Designed and developed a database for an online marketplace.  
**Used Technologies:** Java, MySQL, OpenJPA, JUnit, Git.

## Teaching Assistant

2022	CMSC 455. Software as a Service	Virginia Commonwealth University
2021	CMSC 455. Software as a Service	Virginia Commonwealth University
2021	CMSC 401. Algorithm Analysis	Virginia Commonwealth University
2021	CMSC 401. Algorithm Analysis	Virginia Commonwealth University
2020	CMSC 508. Database Theory	Virginia Commonwealth University

## Supervision

2023	Bobby Zita, Undergraduate Student	REU Program
2023	Xander Cole, Undergraduate Student	REU Program

## Publications

Publications and pre-prints are available at <https://scholar.google.com/citations?user=uVCaRjAAAAAJ&hl=en>

## Conferences

- [1] **Imran, Mia Mohammad**, Preetha Chatterjee, and Kostadin Damevski. “Uncovering the Causes of Emotions in Software Developer Communication Using Zero-shot LLMs” - In 2024 IEEE/ACM 46th International Conference on Software Engineering (ICSE). 2024.
- [2] **Imran, Mia Mohammad**, Preetha Chatterjee, and Kostadin Damevski. “Shedding Light on Software Engineering-specific Metaphors and Idioms.” - In 2024 IEEE/ACM 46th International Conference on Software Engineering (ICSE). 2024.
- [3] **Imran, Mia Mohammad**, Yashasvi Jain, Preetha Chatterjee, and Kostadin Damevski. “Data Augmentation for Improving Emotion Recognition in Software Engineering Communication.” In Proceedings of the 37th IEEE/ACM International Conference on Automated Software Engineering. 2022.
- [4] **Imran, Mia Mohammad**, Agnieszka Ciborowska, and Kostadin Damevski. “Automatically selecting follow-up questions for deficient bug reports.” In 2021 IEEE/ACM 18th International Conference on Mining Software Repositories (MSR). IEEE, 2021.

## Journals

- [1] **Imran, Mia Mohammad**, and Kostadin Damevski. “Using clarification questions to improve software developers’ Web search.” Information and Software Technology 151 (2022): 107021.

## Workshops and Presentations

- [1] Ali, H., **Imran, M. M.**, Damevski, K., and Ahmed, I. (2023). Natural Language Processing (NLP) for Digital Forensics, Digital Forensic Research Workshop (DFRWS), USA, 2023.
- [2] **Imran, M. M.** (2023). Exploring Emotions in Open-Source Software Developers’ Communications: Findings and Prospects, Computer Science Speaker Series, VCU, 2023.

## References

- Dr. Kostadin Damevski  
Email: [kdamevski@vcu.edu](mailto:kdamevski@vcu.edu)

Phone: (804) 827-3607

Associate Professor at Department of Computer Science  
Virginia Commonwealth University

- Dr. Irfan Ahmed

Email: [iahmed3@vcu.edu](mailto:iahmed3@vcu.edu)

Phone: (804) 828-7392

Associate Professor at Department of Computer Science  
Virginia Commonwealth University

- Dr. Preetha Chatterjee

Email: [preetha.chatterjee@drexel.edu](mailto:preetha.chatterjee@drexel.edu)

Phone: (215) 571-3726

Assistant Professor at Department of Computer Science  
Drexel University