

# Zeeshan Ahmed

## Education

- 2020-2021 **Master of Computer Science**, *The University of Iowa*  
*Focus Areas: Software Engineering, Data Science, Machine Learning, Algorithms*
- 2013-2017 **B.S. in Electrical Engineering**, *University of Engineering & Technology, Pakistan*  
*Focus Areas: Operating Systems, Databases, Computer Networks, Data Structures*

## Skills & Expertise

- Programming Languages Python, SQL, Apex, Javascript, React/Node.js, C++, Java, HTML/CSS
- Web Development Django, MERN Stack, Ruby on Rails, Visualforce
- Frameworks Agile, Git, CI/CD, AWS, MongoDB, Salesforce

## Professional Experience

- 01/03/2022–present **Software Engineer**  
Vidium Animal Health, A TGen Subsidiary  
7201 E Henkel Way, Suite 210 Scottsdale, AZ 85255
- Development and maintenance of *VariantDB*, a genetic mutation database for canine cancer research, including the front-end interface for user interaction
  - Design and development of *Deermouse*, an inter-species protein alignment tool, reducing reporting time by 25%
  - Automating Salesforce order workflow and its integration with an external Lab Information System for efficient order management and tracking
- 05/01/2021–12/17/2021 **Web Developer**  
IIHR, The University of Iowa  
Maxwell Stanley Hydraulics Laboratory, 100 C, Iowa City, IA 52242
- Developed a JavaScript library for [Water Information System](#), improving the codebase with modular components for map, UI panels, and core services.
  - Optimized Iowa Flood Information System performance by implementing service workers to cache assets and enable offline capability, reducing page load-time by 20%.

## Projects

- Spring 21' **Science Alliance Portal** [App](#) / [Code](#)
- Developed a web application to facilitate Iowa Bioscience Academy in recruiting/managing members of the [Science Alliance](#) program
  - Developed an event management system using JavaScript to invite/signup members for the events
  - Designed and developed Login/Signup and front-end UI of the landing page and dashboard
  - Utilized: Django, JavaScript, PostgreSQL, Bootstrap, Github Actions, Microsoft Azure
- Spring 21' **Disaster Assistance Management System** [Code](#)
- Developed a request-response based Web Application to help people manage resources in disasters
  - Worked on Login/Signup, request creation and UI/UX Design
  - Utilized: MySQL, Express, React, Nodejs
- Fall 20' **Online Card Trading Game** [App](#) / [Code](#)
- Developed a Web-based multiplayer game, that allows friends/family to play card games based on their own rules
  - Developed a session sharing mechanism allowing users to invite/join games in separate rooms
  - Implemented third party authentication using OAuth to streamline login/signup process
  - Utilized: Ruby on Rails, JavaScript, PostgreSQL, Heroku

## Publications

- NDSS **PHOENIX: Device-Centric Cellular Network Protocol Monitoring using Runtime Verification**  
Mitziu Echeverria, **Zeeshan Ahmed**, Bincheng Wang, M. Fareed Arif, Syed Rafiul Hussain, Omar Chowdhury  
*Network and Distributed System Security Symposium (NDSS), Virtual, 2021*