

Komal Atul Sorte

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Actively seeking Full-Time opportunities starting Jan 2021

EDUCATION

Rochester Institute of Technology, Rochester, New York - Master of Science in Computer Science (*Expected 2020*)

Aug 2018 - present

Savitribai Phule Pune University, India - Bachelor of Engineering in Computer Engineering

Aug 2012 - May 2016

WORK EXPERIENCE

Intern – Data Diode Development (Cyber Security) | SIEMENS CORPORATE TECHNOLOGY, New Jersey

May – Aug 2020

- **Project:** Develop Offline Patch Management framework using WSUS Offline Update.
- **Project:** Automated Hardening – automate the process of system hardening based on pre-defined benchmarks.
- Utilized Technologies/Software: Python, PowerShell, WSUS, Linux, Windows, Bash, GitLab, Windows Task Scheduler

Developer | ROCHESTER INSTITUTE OF TECHNOLOGY, New York

Jan – Apr 2020

- **Project:** Built website for developing experiential laboratories for computing accessibility education (National Science Foundation's Grant).

Team Member/Web Developer | WOMEN IN COMPUTING @RIT, New York

Jan – Apr 2020

- **Project:** Developed a website for GenCyber Summer Camp and to organize outreach events focusing on Cyber Security @RIT.

Intern – Software Developer | SIEMENS CORPORATE TECHNOLOGY, New Jersey

June – Dec 2019

- **Project:** Developed a **Cyber Security** product for assessing Power Plants and network control systems. Designed and developed modules and macros to cater variety of complex problems and requirements of the Power Plant clients – UK's Security Standard: *NIS, North American Electric Reliability Corporation (NERC) CIP, and IEC 62443*
- **Project:** Integrated CDR technology with Siemens DCU to prevent malicious files to be uploaded over the network.
- Utilized Technologies/Software: Visual Basics, Excel, Python, PowerShell, Data Diodes, FTP, Content Disarm & Reconstruction (CDR), Linux

Software Developer | ROCHESTER INSTITUTE OF TECHNOLOGY, New York

May – June 2019

- **Project:** Developed, customized and evaluated software used in *The Interactive Video Vignettes* project (online tutorials for physics education).
- Utilized Technologies/Software: Java, JavaScript, JSON, CSS and HTML5, IntelliJ

Software Engineer | HCL TECHNOLOGIES, India

Aug 2017 – July 2018

- **Project:** Implemented Failure Mode and Effect Analysis (FMEA) in Active Workspace for client "Siemens India" (*Nov 2017 – July 2018*)
- **Project:** Developed front-end and formulated back-end SQL queries of Quality Solution QSYS for client "Siemens Germany". (*Aug - Nov 2017*)
- Utilized Technologies/Software: AngularJS 1.5, JS, JSON, CSS, Eclipse IDE, C++, SQL developer, SQL, OpenText Developer

Intern | SIEMENS INDUSTRY SOFTWARE (INDIA) PVT. LTD., India

July 2016 – July 2017

- **Project:** Worked on migration of Teamcenter core framework from Eclipse 3.x to 4.x. (*Nov 2016 – July 2017*)
- **Project:** Evaluated Rich Client Platform Testing Tool (RCPTT) involving GUI testing automation of Eclipse-based application. (*Sept – Nov 2016*)
- **Competition:** Siemens Global Hackathon 2017, *Semi-finalist on global level*
- Idea for Hackathon: Internet of visuals and visualization as a service - Enhancing capability of visualization with cloud and augmented reality
- Utilized Technologies/Software: Core Java, RCPTT, ECL, Eclipse IDE & plugin development, Vuforia Unity, Visual Studio, C#

Cisco certified network associate (CCNA) | NETWORK BULLS & IIT KANPUR

June 2015

- 15 days Summer Internship / Industrial Training on live Cisco Routers and Switches by Network Bulls, India. Operations on TCP/IP and OSI models. Authenticating password security. Training on functionality of different networking devices and IP addressing.

ACADEMIC PROJECTS

Automatic Text Generation using Deep Learning

Aug 2020 – Present

- Build and enable an AI agent (LSTM) such that it learns a piece of script and automatically generates text based on appropriate context.

Probabilistic Allocation Using Doubly Stochastic Matrix (Multi-Agent Systems)

Feb – May 2020

- Sampled deterministic allocation from the given probabilistic allocations using Python, Birkhoff Von-Neuman Algorithm, bipartite graphs, perfect matching. **Phase 1:** Decomposition for Doubly Stochastic Matrices; **Phase 2:** Decomposition for Bi-Stochastic Matrices; **Phase 3:** Sampling

Sentiment Analysis on IMDb Movie Dataset

Sept – Dec 2019

- Classified and predicted movie ratings based on several factors and performed a sentiment analysis on the IMDb movie dataset using R and RStudio. Algorithms: Naive Bayes, Decision Tree, Regression, KNN Classifier

Security Evaluation System

May 2019 – Jun 2019

- Designed & implemented a security evaluation system based on the expert system and ML technology. **Part 1:** Decision making & project specification development. **Part 2:** Developed Expert system in Java, JavaFX **Part 3:** Designed & implemented ML app using Tensor flow.

Sudoku

Feb – Apr 2019

- Developed an application with a 3-tier model i.e. MVVM (Observable, Mediator, Singleton design patterns) that generates Sudoku puzzles of varying difficulty using backtracking, .net framework 4.7, C#, Visual Studio 2017, XAML, WPF. **Phase 1:** Generated solutions for 4x4 or 9x9 puzzles. **Phase 2:** Generated puzzles for solutions from Phase 1 that the end user could solve. Create GUI using WPF Framework.

Yelp dataset and Room Occupancy dataset

Feb – Apr 2019

- **Phase 1:** Web application for querying the Yelp dataset. **Phase 2:** Datamining using R and applied KNN and Decision tree to predict and visualize facts on Room Occupancy dataset. Utilized Technologies: MySQL, Bootstrap framework, HTML, CSS, PHP, Node.js, Python, RStudio

Undergraduate Project Single Sign on and digital signature for secured authentication of web services using Kerberos protocol. Sponsored Armament Research & Development Establishment of Defense Research and Development Organization (**ARDE DRDO**), India

Aug 2015 – May 2016

- Utilized Technologies/ Software: Java, HTML, CSS, JavaScript, jQuery, PHP, Apache Maven, Apache Tomcat, Apache Studio, SSH Algorithm

TECHNICAL SKILLS

Programming/Scripting Languages: Python, Java, Android, C#, C, C++, PowerShell, VBA, Bash | **Web Technologies:** HTML, CSS, JavaScript, JSON, AngularJS 1.5, PHP, Bootstrap framework, Apache Cordova, Visual Basic, Java FX, React.js, XML, REST, API, Flask | **SQL and DBMS Programming:** MySQL, MongoDB | **Project Management Methodology:** Agile, Waterfall | **Distributed Systems & Networks:** Docker, Wireshark, WSUS Offline, AWS | GitLab, GitHub, CI/CD Methodologies, Yaml | Data Structures, Object Oriented Programming (OOP), Algorithms