

# SHUBHAM PATIL

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## Summary

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Graduate Student in Information Systems with expertise in Java, UI/UX and Automation. Highly proficient in object-oriented programming languages and IoT. Software and hardware skills put together help me design and understand a system completely. I'm looking for an opportunity to use the skills and expertise in technology to simplify our daily lives and provide solutions to customers that would exceed their expectations.

## Education

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### Master of Science, Information System

Northeastern University, Boston, MA

Expected December 2023

Relevant Courses: Application Engineering and Development (Java), Program Structures and Algorithms, Web Development Tools, Web Design and Development, Data Management and Data Base Design

### Bachelor of Engineering

Mumbai University, Mumbai, MH, India

October 2020

Relevant Courses: Internet of Things, Application Microcontroller Image Processing, Digital Signal Processing, Advance Sensors, Feedback Control Systems, Digital & Analog Electronics

## Technical Skills

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- Programming Languages: Java, JavaScript, Python, HTML5, CSS3
- Database: MongoDB, MySQL, MS SQL
- Frameworks: NodeJS, ReactJS, SCSS, ExpressJS, Bootstrap, Spring MVC, Maven
- Tools: Android Studio, GitHub, NetBeans, IntelliJ, Eclipse, VS Code, Postman, MS Office
- Operating System: Windows, Mac, and Linux
- Others: Data Structures and Algorithms, Networking basics, SCADA, AWS fundamentals

## Projects

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### Analysis and Improvements of Multiple Algorithms, Northeastern University

June 2022 - July 2022

- (Java, Benchmarking tools, BST's, Sorting Algorithms, Searching Algorithms)
- Analyzed and compared 5 sorting algorithms only on basis of array accesses to determine execution time
- Optimized greedy algorithm by 25% for TSP by using its output as input for genetic algorithm
- Determined average height of BST by modifying Hibbard deletion process and making selection random or according to size of candidate nodes

### Travel Destination Finder and Blog Website, Northeastern University,

February 2022 - April 2022

- (Java Script, MongoDB, Express, ReactJS, NodeJS)
- Built interactive MERN stack website permitting users to create and handle blogs
- Combined application with APIs such as real time Weather, Google Maps, and EmailJS to plan trips with ease
- Integrated speech to text to enable Voice search to make application easy to use
- Led a four-member team, managed and distributed roles to each member according to skill set increasing total productivity and effectiveness

### Application for Virtual Medical Care, Northeastern University

February 2022 - April 2022

- (Java Swing, Java AWT API)
- Developed real time medical treatment comparison system filtering hospitals by location and prices
- Integrated various third-party libraries including Calendar, Maps and Email API to enhance user experience
- Implemented CRUD operations on various enterprise using db4o
- Engineered the SDLC process and data flow of application by creating UML diagrams

### Wildlife Surveillance Robot, Mumbai University

August 2019 - March 2020

- (Arduino Uno, AtMega328, UART Communication Protocol, C++)
- Devised to monitor wildlife and collect samples if required with minimum human and animal interaction
- Coded the Arduino with C++ for its proper operation of the remote device
- Designed and built vehicle body with robotic arm increasing its functionality and scope by 30%
- Consolidated HC-12 wireless module for transmission and motor driver IC L293D for motor operations