

# Joy GHOSH

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## EDUCATION

AUG, 2021 (Expected)	M. S. in COMPUTER SCIENCE <b>Colorado State University</b> , Fort Collins, Colorado
SEPT, 2017	B. Sc. in COMPUTER SCIENCE AND ENGINEERING <b>Bangladesh University of Engineering and Technology</b> , Dhaka, Bangladesh

## WORK EXPERIENCE

- Graduate Research Assistant at DEPARTMENT OF COMPUTER SCIENCE, COLORADO STATE UNIVERSITY, Fort Collins, Colorado. Research Area - Software Engineering. (Current - Aug 2019)
- Junior Software Engineer at KONA SOFTWARE LAB LTD., Dhaka (May 2019 - Feb 2018)
  - Decreased file read/write time in **USIM** card by **26%** after changing internal file system data structure to hash map based architecture. Used **Java** and followed **3GPP**, **ETSI** standards.
  - Decreased 4G authentication time of **USIM** card by **31%** by skipping common calculations.
  - Developed features like undo/redo operations for GUI based **USIM** personalization tool using **Java Swing**.
  - Researched different **Delta encoding** algorithms for FOTA servers and tested their performance on **Wandboard Quad**. Worked with **C**, **u-boot**.
- Junior Programmer at CTRENDS SOFTWARE AND SERVICES LTD., Dhaka (Jan 2018 - Oct 2017)
  - Worked on automating business processes in ERP Software. Used **Spring MVC**, **Hibernate**, **HTML5**, **CSS3**, **Bootstrap**, **jQuery**, **PostgreSQL**.

## SKILLS

Language	C/C++, Java, Python, PHP
Database	Oracle SQL, MySQL, PostgreSQL
Web Development	HTML5, CSS3, Bootstrap, JavaScript, jQuery
Framework	Laravel, Spring MVC

## NOTABLE PROJECTS

- TUTORIAL BUDDY** - Developed a tool that can identify when a certain topic was discussed in a lengthy **YOUTUBE** video. Used **Python**, **Tesseract OCR**, **OpenCV**, **Wit.ai Speech Recognition API**.
- USNEWS SCRAPPER** - Developed a tool to store University ranking information from **usnews.com** in **excel** file. Used **Python**.
  - Can be installed by **pip install usnews-scrapper** command.
- MOVIES360** - Developed a movie website similar to **IMDB**. Used **Laravel**, **MySQL**, **HTML5**, **CSS3**, **PHP**.
- SPADE** - Developed a multiplayer card game to play via **LAN**. Used **Java**, **Java Swing**, **Socket Programming**.
- PERSONAL WEBSITE** - Developed a website hosted at **www.ijoyghosh.com**. Used **BootStrap**, **CSS3**, **jQuery**.
- TRAIN ALERT** - Developed an **Android** app that alerts user about nearby trains to stop accident. Used **Google Play services** location API, **REST API**, **MySQL**, **Raspberry Pi**, **GPS module**.
- 4-BIT PC** - Designed 4-bit PC with **MIPS** architecture and simple instructions as a hardware project.
- GRAPH PLOTTER** - Developed a tool that can plot 2D and 3D graphs from equations. Used **C**, **iGraphics**.
- PYCALENDAR** - Developed calendar tool. Used **Python**.

## ACADEMIC HONORS

- Technical Scholarship from Bangladesh University of Engineering and Technology (2013)
  - Awarded for good performance in B.Sc. admission test. Ranked **186th** out of nationwide 50,000 applicants.

## OTHER ACTIVITIES

- Tutored an undergraduate student on CS courses like - Algorithms, Data Structure, Digital Logic Design, OOP, Artificial Intelligence for over 2 years.
- Created Bengali subtitle of 'Man of Steel' with a rating of 10/10 and over 2800 downloads.