

# Rinkal Agrawal

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## EDUCATION

### UNIVERSITY OF MINNESOTA

#### B.S. IN COMPUTER SCIENCE

May 2017 Graduate | CGPA: 3.64/4.0

Dean's List recipient for all semesters

## SKILLS

### LANGUAGES

Java • Python • Typescript • Swift •  
C# • HTML5 • CSS3 • JavaScript •  
C/C++ • MySQL

### FRAMEWORKS

Angular 6 • Node.js • PyTorch • Xcode •  
Express.js • Bootstrap4 • MongoDB •  
React • .Net

### STRONG KNOWLEDGE

Microservice Architecture • REST •  
Unit Testing • Product Ownership •  
NPM packages • Agile Methodology •  
Github • Tomcat • Eclipse

### WORKING KNOWLEDGE

Neural Networks(MLP, CNN, RNN) •  
Anaconda • RabbitMQ • Twilio API's •  
AWS • Firebase • MVC • MVVM •  
Multi-threaded Programming •  
Google Cloud API's • PHP •

## RESEARCH

### UNDERGRAD RESEARCHER

U of M Software Engineering

Center Aug '16 – Dec '16

- Worked on a NASA project under Prof. Sanjai Rayadurgam to display the autonomous applications of a quad copter drone by using a pix hawk hardware with tweaked octocopter software.

## COURSEWORK

Advance Algo and Data structures  
Intro to Deep Learning  
Software Design and Development  
Artificial Intelligence  
Internet Programming

## INTERESTS

- Mentoring students w/ CoderDojo
- Networking events and webinars
- Reading and Writing blogs
- Outdoors, Roadtrips and Hiking

## EXPERIENCE

### SOFTWARE ENGINEER II

Software Engineer I

CenturyLink

- Built a data-driven application using Angular6, and Java on node.js to provide a front-end for inventory, leading to 40% less error tickets over 6 months. As a product owner, decided feature directions, worked with users to gather requirements and feedback.
- Implemented an automation solution in Java for SD-WAN technology by working with different business units, resulting in decrease in device activation time from 30+ minutes to just over 2 minutes.
- Built a server-side routing engine using javaScript and json on express.js to route the incoming traffic based on the request, resulting in over 20% decrease in client server load.
- Increased the legacy server engine efficiency by 4 folds by rewriting the algorithm using SNMP technology.

Nov '18 – Present

June '17 – Nov '18

### SOFTWARE DEVELOPER INTERN

Design Ready Controls Inc.

June '16 – June '17

- Worked on windows desktop applications using C# and .Net that helped electrical engineers better and faster design control panels, reducing the panel delivery time by almost 20%.
- Designed and implemented the UI for the android app for an R&D project that let users see the field sensors data in real time using AWS.

## PROJECTS

### SPY | WEB APP FOR MONITORING TEAM'S SUCCESS

Independent Work project, 9 weeks

| Angular6, Java

- Designed and built the app to let team members post their project successes.
- Lets other people within the company view posted achievements and other project related statistics from an elegant dashboard.

### STYLE TRANSFER | CNN TO TRANSFER IMAGE STYLE

Independent project, 2 weeks

| Python, PyTorch

- Designed a Convolutional Neural Network using a pre-trained VGG19 model to transfer the style of one image onto the content of another image generating a completely new image.

### VIDEO MESSENGER | WEB APP FOR HEARING IMPAIRED STUDENTS

Non-Academic Team Project, 13 weeks, team of 4

| React

- Designed and built to conduct an on-line class of hearing impaired students by implementing video messaging recorded in sign language to help improve their university experience.

### BITCOIN TRACKER | IOS APP FOR TRACKING BITCOIN PRICES

Independent project, 3 weeks

| Swift, MongoDB

- Designed to track bitcoin prices and it's market demand. Added a feature to provide customized notifications based on the user filled price range.

### LANGUAGE TRANSLATOR | CDAL TO C++ CODE TRANSLATOR

Academic Project, 15 weeks, team of 2

| C++

- Built a compiler to translate 'Climate Data Analysis Language' code into C++ code using regular expressions. Extensively utilized unit testing to verify correctness.