

# SHASHANK SAXENA

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## ► EMPLOYMENT

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### **GSI** · Software Architect Intern | Champaign, IL

Nov 2017 to Current

- Created a test environment for internal web developers that interfaces with the GSI Edge controller
- Architected an in-house distributed mini-cluster to using socket programming + I/O pins
- Used Node.js, Raspberry Pi (GPIO), Python3 - made from scratch

### **Capital One** · Data Engineering Intern | Champaign, IL

May 2017 to Oct 2017

- Designed scalable architecture and database schemas for use with existing Capital One technology
- Implemented a 4-way pipeline to process big data and served content through RESTful web API
- Worked with Apache Kafka, Accumulo, Spark, and Flask

### **Reconstruct** · Software Engineering Intern | Champaign, IL

Sep 2016 to Dec 2016

- Worked in the initial stages of startup that dealt with visualizing construction sites
- Maintaining backend server that serves as a portal to the website
- Used Node.js, AWS S3, and GitHub

### **AllState** · Application Developer Intern | Northbrook, IL

May 2016 to Aug 2016

- Automated a large chunk of the processing of policy information
- Worked mostly on internal web apps (backend)
- Used C# and XML in Visual Studio along with SQL Server Management Studio with LINQ queries

### **StateFarm** · Software Engineering Intern | Champaign, IL

May 2015 to May 2016

- Implemented an internal Windows application that let marketers keep track of incoming customers
- Used VB.NET and Microsoft's Jet engine
- Updated and completely reworked internal website for interns
- Used MEAN stack with backend focus

## ► PROJECTS

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### **SDFS - Simple Distributed File System**

- Created a fault-tolerant distributed file system from scratch
- Intended to simulate how files are stored "in the cloud"
- Used Java and 10 virtual machines all connected on the same network

### **phoneify - Open Source Contribution**

- Built an npm module that would ease parsing of US phone numbers in different formats
- Over 1000+ downloads

### **Riskulizer - Hackathon (2nd Place Winner)**

- Developed backend to app that visualized data from calamities and displayed affected areas
- Goal was to convert data into a visualization (around 100k+ data points)
- Used Flask as a RESTful API service, and various front-end graphing libraries in JavaScript

### **MangOS - Team Project**

- Designed a Linux kernel from nearly nothing
- Implemented file systems, hardware initializations, execute/halt, interrupts, and scheduling
- Used C and x86

### **VRMD - Subteam Lead Developer**

- Updated VR project dealing with safety awareness training focusing on laparoscopic and heart surgery with human body
- Used Unity, C#, and the Oculus SDK with Oculus Touch integration

### **HomeFront - Notable Mention**

- Created a Pebble smartwatch that receives the status of your home based on sensor information
- Used CloudPebble with Pebble.js and AllState's Internet of Things (A6) API

## ► EDUCATION

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University of Illinois  
Urbana-Champaign  
B.S. Computer Engineering  
May 2018  
U.S. Citizen

## ► SKILLS

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### PROFICIENT WITH

Java  
C++  
C  
x86  
Python  
JavaScript  
Node.js  
HTML/CSS  
VB.NET/C#

### FAMILIAR WITH

SQL/NoSQL  
Swift  
MATLAB  
Apache Kafka  
Apache Spark  
Apache Accumulo

## ► COURSE

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Signal Processing  
Artificial Intelligence  
Text Information  
Systems  
Virtual Reality  
Computer Systems  
Programming  
Data Science  
Machine Learning  
Distributed Systems  
Operating Systems

## ► ACTIVITIES

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Chair of SIGVR  
ACM@UIUC - Exec Member