

Mehul Shinde

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Education

Carnegie Mellon University Master of Science in Software Engineering

Expected Graduation May 2021

GPA: 3.74/4.00

Iowa State University Bachelor of Science in Computer Engineering

May 2019

Cardinal Key Honor, College of Engineering Dean's List 2018

Skills

Java, JavaScript, Python, HTML, CSS, Node, React, Angular, SQL, Android, Ionic, Git, Subversion, C#, C, Linux/Unix, AJAX, AWS Lambda, Dynamo DB, Mongo DB, Heroku, AWS Amplify, Firebase, jQuery, Polymer.

Work Experience

Software Engineer Intern | Copart Inc. – Dallas, TX

August – December 2019

- Developed APIs and services in *Java* and *Spring* for the Accounting and Revenue Recognition team.
- Designed and implemented proof-of-concept for Batch Data Processing with *Apache Kafka* & *RabbitMQ*.
- Improved number of request queues from 200 to 1 through Batch Data Processing tools and message brokers.

Information Technology Intern | Farm Bureau Financial Services – Des Moines, IA

August – December 2018

- Built a client-facing cross-platform mobile application using *Ionic*, *Angular*, and *C#*.
- Accomplished security check features in user account authentication process.
- Executed server-side caching to reduce API calls by 90%.

Software Development Intern | Renter Gate – Ames, IA

May – August 2018

- Created a web application for a rental-property management start-up utilizing *Polymer*, *Node*, and *Firebase*.
- Devised an announcement feature to notify intended audience of an announcement.
- Programmed an automated email generation system for account activities.

Software Development Intern | LESEM Lab, Iowa State University – Ames, IA

May – August 2017

- Wrote software for an open-source watershed simulation web-application leveraging the Web Stack (*JavaScript*, *HTML*, *CSS*).
- Constructed a backward compatibility feature to support files from 2 older versions.
- Implemented a report generating functionality to collect simulation data and present it as reports.

Project Experience

Code Smells Detector (Data Science for Software Engineers, CMU)

August 2020 – Present

- Working on an individual Code Smells detector application in *Python* with help of Machine Learning algorithms and other Data Science practices.

Recipe Wizard (Start-up - Maai)

June – August 2020

- Individually built a web app for a start-up applying Object-Oriented Analysis and other software design principles; and tools such as *JavaScript*, *React*, *AWS Lambda*, *DynamoDB*, *AWS Amplify*.

Publication Recommendation (Service-Oriented Computing course, CMU)

March – May 2020

- Collaborated in a team of 5 on a building a publication repository and recommendation application in *Java* with *Machine Learning* libraries to categories and output appropriate publication meta-data based on user preference.
- Used *Play 2.0* framework to write *REST API*, *MySQL* for storing the publication data, *Apache Lucene* for key-word search, *LDA* for topic modelling, and *Google Maps API* for plotting points on map.

Emergency Social Network (Software Engineering Methods course, CMU)

January – May 2020

- Participated in a team of 5 and a community of practice to construct a *React* and *TypeScript* application following different software methods along with writing unit-tests and utilizing tools such as *git* as version control.
- Lead user interaction community and heuristic evaluations of features. Used project tracking tool - *JIRA*.

Drone Simulator (Senior Design course, ISU)

August 2018 – May 2019

- Acted as the Team Lead (of 5 members) to build a drone simulator with *Gazebo*, *ROS*, and *React*.
- Performed image-stitching and terrain mapping with Computer Vision tools - *Open Drone Map*, *Blender (Python)*.

Lineage-Driven Memory Management Project (Computer Engineering, ISU)

January – May 2017

- Performed research on a solution framework to enable lineage aware data management with *Spark*, *Gem5*, and *Pig*.

Anatomy App (Vet Med, ISU)**January – May 2019**

- Solely performed development of a mobile app in *Angular*, *Ionic*, *TypeScript*, and *Node*. The app served videos, documents, and 3D graphics aiding students in learning canine dissection.
- Coded file caching and storage system to cache files and interactive modules to reduce server API calls from 100 to 1 API call per month.

Smart Farmer (Agronomy Department, ISU)**August – December 2017**

- Made an android app in *Java* along with *SQL* and *SQLite* in a team of 4 programmers. The app helped farmers track the cost of a crop cycle and collected agriculture and economic data for research at ISU.

SARE Inventory Project (Industrial Engineering, ISU)**January – May 2017**

- Created a mobile application, individually, to support a research project with *Google Apps Script* to optimize transport of food products in a food network.

Paint Ball Battle (Honorable Mention - Software Development Practices course, ISU)**January – May 2017**

- Worked in a team of 4 to deliver an android paintball game utilizing *Java*, *PHP*, *libGDX*, and *SQL*. Acted as a Tech Lead and oversaw programming practices and documentation.

Mars Rover (Embedded Systems – ISU)**January – May 2017**

- Programmed an autonomous rover (in a team of 3) in *C* to navigate an obstacle course based on sensor data. Also wrote an intuitive GUI in *C#* to control rover over Wi-Fi.

CLI chat-box (Winner - HackISU)**September 2016**

- Participated in a hackathon along with a team of 4 and delivered a CLI for a software engineering collaborating tool - GForge with an in-house API and *Python* (learned on the spot).

Leadership Experience

- **Peer Career Consultant (CMU-SV):** Worked along with 4 students to advise and help students with navigating job search.
- **Teaching Assistant (CMU-SV):** Assisted instructor in the Introduction to Graduate Studies course at CMU-SV.
- **President, Indian Students' Association (ISU):** Presided over the second-largest Student Organization at ISU (400 members).
- **Events Coordinator, International Students Council (ISU):** Organized and oversaw some of the largest events at ISU.
- **Teaching Assistant (ISU):** Conducted lab sessions for the Digital Logic at ISU.
- **Research Assistant (ISU):** Collaborated in research projects in the Industrial Engineering and the Computer Engineering department at ISU.