

Atul Jalan

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EDUCATION

Northwestern University

GPA: 3.80/4.00

B.A. Computer Science

Expected Graduation: 2021

- Selected Courses: Agile Mobile/Web Development, Machine Learning, Algorithms

EXPERIENCE

Incoming Software Engineer Intern

June – September 2020

Checker

- Cancelled due to COVID-19

Software Engineer (Contract)

December 2019 – February 2020

Wal Logistics

- Built a cloud database management application with support for custom nested data types, advanced search, and customer access portals to replace legacy freight forwarding software.
- Wrote Node.js scripts to automatically migrate and format 3 gigabytes of critical business data from legacy local databases to a MongoDB M10 Atlas cluster.
- Included support for admin controls to restrict employee access to various data tables and actions depending on an employee's IP address, job title, and time of day.
- Designed an intuitive interface to interact with large databases, create custom web hooks, and generate customer billing reports using React.js, eliminating the need for costly employee onboarding procedures.

Software Engineer Intern

November 2019 – January 2020

Blueprint

- Programmed visual overhaul of checkout page (1000+ daily visitors) for food delivery service using React.js, Docker containers, and Git for version control.

PROJECTS

Global Instant Messenger (instamessage.rf.gd)

August – October 2019

Personal Project (Solo)

- Facilitated instant messaging through WebSocket connection via Node.js Express server hosted on Amazon Web Services (AWS) elastic compute 2 (EC2) instance using pm2.
- Implemented support for creation of 5,000 simultaneous one-on-one conversations with other users using Socket.io in addition to global chat option.
- Enabled seamless continuation of conversations by retrieving user profiles and chat conversations stored on NoSQL MongoDB Atlas cluster through JavaScript Fetch API.
- Built RESTful APIs for client-server communications that are secured against 3rd party data interference via password hashing and JSON authentication tokens stored through browser cookies.

Visual Pathfinder: Interactive Graph Traversal (visualpathfinder.rf.gd)

September 2019

Personal Project (Solo)

- Created scalable 2D doubly linked list with real time node insertion/deletion feature.
- Wrote adjustable speed, drag-and-drop visualizations for pathfinding and maze generation
- Developed algorithm to produce non-perfect mazes with guaranteed solutions in addition to included recursive division maze generator.

SKILLS

Front-end: React.js, JavaScript, HTML5, CSS3, Less.js

Back-end: Node.js, MongoDB, REST APIs, JSON, Python, WebSockets

Tools: AWS EC2, Docker, Git for version control, Heroku Cloud