

# Jude Naveen Raj Ilango

jni215@nyu.edu | 646-409-6957 | Jersey City, NJ 07306

linkedin.com/in/judenaveenraj | github.com/malfusion | www.malfusion.com

Designed a product from scratch as a new grad, started a software company and freelanced for international clients.

A full-stack developer who has impacted millions of users, over half a decade.

## EDUCATION

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### New York University - New York, USA

Aug 2019 - May 2021

Master of Science in Computer Science – GPA: 3.9 / 4.0

- Coursework: Algorithms, Programming Languages, Big Data, High Performance Computing, Distributed Systems.
- Graduate Teaching Assistant for Operating Systems.

### National Institute of Technology - Tiruchirappalli, India

Aug 2010 - Aug 2014

Bachelor of Technology in Computer Science and Engineering

## WORK EXPERIENCE

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### New York University

*Graduate Research Assistant, RiskEcon Lab for Decision Metrics*

Jun 2020 - Present

- Formulated risk/reward functions for distributed consensus and task assignment in drone swarms, prototyped using Python.

### Arktek Business Solutions Pvt Ltd

*Founder / Full Stack Software Development Engineer*

Aug 2015 - Aug 2019

- Architected JavaScript SaaS applications to automate the process of product inspection, data collection, synchronization and reporting from no-bandwidth areas.
- Reduced complaint resolution time by 95% and saved ~6 human hours per day per employee.
- Integrated Service Worker Web APIs to provide a streamlined, offline-first auditing experience.
- Engineered a Node.js backend architecture having ~10 microservices, backed by a polyglot database.
- Developed AngularJS frontend components and user interfaces for client app, admin portals and analytics dashboards.
- Leveraged Knowledge in Web frameworks, Typescript, NoSQL, Redis, Unit Testing, TDD and Agile methods.

### Oracle

*Member of Technical Staff, Backend Engineer*

Jul 2014 - Aug 2015

- Architected an infrastructure orchestration service, enabling deployment automation for ~20 cloud services.
- Delivered the prototype in 2 months using Java, Python and Chef, and transferred knowledge to an offshore product team.
- Implemented 2 message delivery mechanisms and investigated use of Docker/Kubernetes for a task scheduling service.
- Leveraged Knowledge in Relational DBs, Object Oriented Programming, Message Queues, Service Oriented Architecture.

## PROJECTS

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### Resume Impact Optimizer (Microsoft Azure) - *Live Demo*

Jun 2020 - Jul 2020

- Developed a web application in React and Redux, to assist with crafting resumes and visualizing its verbal impact.
- Analyzed ~2000 job postings using Python, used Spacy NLP to extract keywords, cached results to reduce compute time.
- **This resume was tailor made using this tool and is hosted on Azure Web Services for limited public use.**

### Travel Recommendations Platform (DigitalOcean) - *weathertofly.co.uk*

Aug 2018 - Jun 2019

- Chosen, among 500 applicants, to work on an offline-first Angular based Progressive Web Application, in Typescript.
- Identified performance bottlenecks in Node.js backend, used Redis in-memory caches to optimize API requests by 90%.
- Scaled the system to handle a daily volume of ~10,000 users by utilizing prefetching and aggressive caching mechanisms.

### Real-time Communication Platform (Amazon AWS)

Jan 2018 - Jun 2019

- Built a full stack web application using Angular, Node.js and MongoDB to facilitate vendor-customer interaction.
- Collaborated with an offshore team of 4 to integrate with client's MySQL backend via RESTful JSON APIs.
- Achieved a concurrency of 100,000 users, using an event-driven, low-latency architecture backed by RabbitMQ and Redis.

## SKILLS

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Angular | React | Redux | Node.js | MongoDB | JavaScript | TypeScript | Python | Java | C++ | HTML | CSS  
Elasticsearch | Redis | Webpack | Docker | Kubernetes