# Pradyumna Newalkar

Senior Software Engineer

### Contact

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Excellent problem solver and critical thinker; Experienced in building large scale distributed systems irrespective of the tech stack, highly experienced in JavaScript and node.js; proficient in Python, C++, C, and Java; solid working knowledge of Postgres, Solr, Lucene, Kafka; hands-on experience with AI/ML, NLP, Computer Vision, and Neural Networks

# Skills

#### PROGRAMMING LANGUAGES

JavaScript

Python

C++

C lava

### **DATA STORES**

Apache Solr

Apache Lucene

Elasticsearch

PostgreSQL

Cassandra

MySQL

MongoDB

Redis

### **BACKEND TECHNOLOGIES**

Apache Kafka

Node.js

GraphQL

Ansible

Java Spring

aRPC

#### FRONTEND FRAMEWORKS

Vue.js

React.js

### **DEEP LEARNING**

Pytorch

Tensorflow

NLP (LSTM/BERT)

**Computer Vision** 

#### **CLOUD PLATFORMS**

**AWS** 

**GCP** 

## **Education**

Indian Institute of Information Technology, Allahabad July 2013 to May 2017 B.Tech (Information Technology)

CGPA 8.14

# **Employment**

### simsim Senior Software Engineer - Fullstack

New Delhi

Sept. 2020 to Current · Currently working on optimizing video delivery to end customers through adaptive bitrate streaming

- Leading the SEO team, built the server-side rendering architecture using AWS CloudFront and AWS
- Lambda@Edge Leading the Data Analytics team, currently setting up data aggregation pipelines for powering

New Delhi

### **Fullstack Software Engineer**

- Dec. 2019 to Aug. 2020 • Built a scalable E-Commerce Platform from scratch: worked on Product and Seller Catalogue, Pricing and Inventory Microservices using Java, Spring, Cassandra and EKS
- Permanent On-Call for MVP Backend built using node.js and serverless framework

business intelligence and a data lake using AWS Redshift

- · Improved product and video search ranking and implemented new features like autosuggest using FlasticSearch
- · Oversaw development and deployment of user personalization tasks like showing recently viewed products and videos
- Worked on the end to end observability of all the backend services using AWS Cloudwatch

Oyo Gurgaon SDE-1 Oct. 2019 to Dec. 2019

· Part of global consumer payments team - worked on Microservice Architecture using Kubernetes, Java Spring and PostgreSQL

### **Smartprix Software Developer**

Noida May 2017 to June 2019

· Product search and faceting: Developed the core search engine of Smartprix using Solr and GraphQL. Created an efficient pipeline for indexing and retrieving 20 million products from Solr.

- Product Specification Analysis, Storage and Formatting: Worked on generic storage of product specifications, their price based group analysis, comparison and specs - score calculation.
- Data Port: Was responsible for porting data from old format in MySQL to PostgreSQL efficiently.
- Chrome Extension: Developed the chrome extension for showing minimum price of a product across multiple stores and showing similar products.

### **Software Developer Intern**

Noida May 2016 to July 2016

Developed a single page application from scratch using Node.js, Vue.js for running automated online coding contests for hiring purposes. The application included features like code replay and code restore on network disconnection.

Technologies Used: Node.js, Koa.js, Vue.js, Bookshelf.js, MySQL

# **Projects**

#### Image caption generation using deep learning

Dec. 2016 to May 2017

Comparative analysis of Image Caption Generator using RNN, BRNN and LSTM: Used tensorflow to build an end to end caption generator and compared the generated outputs using BLEU score

### Real-time collaborative text editor

July 2016 to Dec. 2016

Jan. 2016 to May 2016

Extended Firepad to use RethinkDB in place of firebase to make a collaborative real time text editor.

2048 solver

Built a 2048 solver using Temporal Difference Learning and N-Tuple networks.

# **Activities**

- · Represented IIITA in Inter IIIT coding contest in 2017 (conducted in IIIT Gwalior) and secured the second position.
- Secured the second position in IIT-BHU's Codefest 2016 CTF contest.
- Qualified for Microsoft Build The Shield CTF contest finals in 2015 and 2016. Both of the times my team was under 20th position among 50 other teams in the finals.
- Qualified for InCTF15 finals organized by Amrita University. My team captured the most number of flags (nearly 300 out of 500) and stood at 6th position in overall finals.