

ATHUL SREEMATHY RAJ

SOFTWARE ENGINEER | RESEARCHER

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EXPERIENCE

Research Assistant

HESL, Polytechnique Montréal (Expected graduation: Feb 2023)

- Introduced a novel federated learning algorithm(FedSHIBU) for training on highly heterogenous data distributions (NeurIPS FL Workshop 2022)
- Courses completed- Machine Learning, Neural Scaling Laws, Software design, Data visualization, Project Management

Technologies and Tools: Python, Pytorch, Numpy

Full-Stack Developer

RUSE AI, Montréal, QC (Jan 2022 - Present)

- Built the payments feature by integrating Stripe
- Built a general widget using Flutter and NestJS to display saved objects in a directory structure
- Load-tested potential bottlenecks in the app's backend and the poker engine
- Converting inputs from poker experts and beta users into features and fixes

Technologies and Tools: Flutter, NodeJS, MySQL, Typescript, VS Code, AWS, Github, Atlassian, JMeter

Senior Software Engineer

Keyvalue Software Systems, India (Aug 2020 - Aug 2021)

- Developed MVP of an e-commerce platform in < 2 months, and then productized it (> 1M users)
- Designed the DB for the product from scratch, considering database concepts and extensibility
- Led a team of 3, to create an independent module for logistics, and completed the integration of 7 different logistics partners within 2 months

Technologies and Tools: NodeJS, Typescript, NestJS, Jest, PostgreSQL, GraphQL, Sentry, GCP, Linux

Technical Staff

Shopalyst Technologies, India (Jan 2020 - Aug 2020)

- Cleaned up 5 years of messy code by enforcing project structuring, removed redundant and unused code, and mandated code formatting (Black for Python)
- Improved unit test coverage from 30% to ~70% for a codebase of more than 100 independent scripts

Technologies and Tools: Python, Elasticsearch, Cassandra, Redis, Kibana, VS Code, Github

Software Engineer

Flytxt Mobile Solutions, India (July 2015 - Dec 2019)

- Improved the speed of estimated audience calculation for an Ad targeting solution by more than 100 times by porting ~250 million records from MySQL to Elasticsearch
- Developed POC for an experience-centric cloud solution for targeted marketing which included voice-based control, dynamic themes, salesforce integration and a chatbot
- Interviewed, trained and onboarded more than 25 fresh engineers across multiple teams

Technologies and Tools: Java, Spring, Maven, JSON, MySQL, Elasticsearch, Kafka, Hadoop, JAX-RS, REST, Atlassian, Github, Linux

EDUCATION

Polytechnique, Montréal

M.A.Sc in Computer Science

Present

University of Kerala, India

B.Tech in Computer Science

Apr 2015