SOURABH NATESH

(617) 412-9013 | natesh.s@northeastern.edu | linkedin.com/in/sourabh-natesh | github.com/sourabh-1996

EDUCATION

Northeastern University   Boston, MA
Master of Science in Artificial Intelligence — GPA: 3.89/4.0   *Sep 2021 – May 2023*

Relevant Courses: Algorithms, Machine Learning, Natural Language Processing

PES University   Bangalore, India
Bachelor of Technology in Computer Science and Engineering — GPA: 8.42/10   *Aug 2014 – May 2018*

Relevant Courses: Data Structures, Software Engineering, Database Management Systems, Web Technologies

TECHNICAL SKILLS

Languages: C, C++, Python, Bash, SQL (MySQL), JavaScript, PHP, HTML/CSS
Frameworks/Libraries: Pandas, NumPy, Matplotlib, Scikit-learn, Keras, Flask, JQuery, Ajax, Node.JS
Tools: Linux, Git, Jira (Agile), Docker, AWS, Cloudfoundry, Postman, InfluxDB, Logstash, Kibana, Apigee

WORK EXPERIENCE

Intel   Jul 2018 – May 2021
Software Engineer   *Bangalore, India*

Protecting Confidential Customs Data
- **Led a team** of 3 developers to devise a blockchain based proof of concept to validate Intel's confidential data, thus **saving 5000 hours** annually in manual auditing. More details here
- **Containerized REST API's** with Docker to validate data and secured them with **OAuth 2.0**
- Reduced execution time of a validation algorithm from **3 minutes to 30 seconds** by implementing a caching mechanism using Lightning Memory-Mapped DB
- Authored unit test cases with **PyTest** and attained a code coverage of **92%**

Workload Fingerprinting
- Worked on a project to **reduce resource contention** in data center servers by identifying workload profiles
- Deployed Python scripts to spawn **Docker containers** and **Kubernetes Pods** with workloads
- Authored **C code** to collect system level performance data and sent it to **InfluxDB** via **ZeroMQ** for analysis
- Achieved a **99% accuracy** in workload identification and **97% accuracy** in resource forecasting

Intel   Mar 2018 – Jun 2018
Software Engineer Intern   *Bangalore, India*
- Designed and developed a **fullstack** internal web based tool from scratch for automating component reviews, serving **100+ users** globally and saving **20+ developer hours** every week
- Defined **MySQL database** schema and composed queries to perform CRUD operations on 30 tables and 10 views
- Developed **REST APIs** in **Flask** and defined **asynchronous** functions to call them using **Javascript** and **Ajax**

PROJECTS

Detecting Red Flags in Lease Documents   Sep 2021 – Dec 2021
- Compared **machine learning** algorithms to detect red flags and named entities in rental lease agreements
- Attained a Mean Average Precision score of **0.6510**

Content Based Video Retrieval   Jan 2018 – May 2018
- Created a **fullstack** web application to upload and play videos and search for content in them
- **Indexed** each video frame with features extracted from **Speech to Text and Optical Character Recognition**
- Calculated **TF-IDF** scores to get results ranked by relevance. Achieved a **precision of 78%** and a **recall of 89%**

Recognition and Execution of 'C' code in images   Aug 2017 – Dec 2017
- Built an application with **Tkinter** to import images, recognize code in them, edit and execute the code
- Formulated a **Convolutional Neural Network** based algorithm to recognize the code present in images with an accuracy of **93%**