Arutselvan Dhanasekaran

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EDUCATION

NIT TRICHY
BTech in Electronics and Communication
Minor in Computer Science
May 2019 | Tiruchirappalli, India
Cum. GPA: 7.35 / 10
Minor GPA: 8 / 10

JHSS, NEYVELI
AISSCE (CBSE) - 95.6%
Grad. May 2015 | Neyveli, India

JMHSS, NEYVELI
SSLC (TN) - 97.4%
Grad. May 2013 | Neyveli, India

LINKS

Github:// **arutselvan**
LinkedIn:// **arutselvan**

COURSEWORK

UNDERGRADUATE
Data Structures and Algorithms
Operating Systems
Computer Organization
Database Management Systems
Networks and Protocols
Software Engineering
Artificial Neural Networks
Digital Speech Processing

INDEPENDENT
Mathematical thinking in CS
Introduction to Graph theory
Introduction to NLP

SKILLS

PROGRAMMING
Over 5000 lines:
Python • C/C++ • Javascript
Over 1000 lines:
Java • HTML • CSS • PHP
Assembly • Matlab
Familiar (Over 500 lines):
Bash • Ansible • Powershell

LIBRARIES AND TOOLS
Numpy • Pandas • Tensorflow
NLPToolkit • SpacyNLP
Node JS • ReactJs • Django
Flask • Spring Boot • MongoDB
MySQL • Git

EXPERIENCE

JPMORGAN CHASE & CO | SEP Software Engineer I
July 2019 – Present | Bangalore, India
- Member of the Data Protection team which builds solutions and infrastructure to protect the firm's data.
- Planned, designed and developed a unified monitoring solution to monitor the entire Data protection services and infrastructure with failure prediction and anomaly detection using Python, MongoDB, ReactJS and Electron.
- Designed the firm's solution for of encryption of data in NAS (Network Attached Storage) and Windows file systems.
- Developed microservices for automation of encryption and decryption for AIX file systems using Ansible .
- Developed synthetic transaction monitoring systems for the firm's Key management services and Hardware Security Modules using Java and React.
- Configured and deployed the firm's internal key management service in China data centre.
- Automated cross platform packaging and installation of encryption agent binaries across the firm's infrastructure using Python.

ECE DEPARTMENT, NITT | Undergraduate Student Researcher
Jan 2019 – May 2019 | Tirchirappalli, India
- Worked under **Dr. S .Deivalakshmi** on detection and analysis of pitting corrosion in metals exposed to alkaline medium of varying concentrations using a Fast Region based Convolutional Neural Network.
- Collaborated with CSIR - Central Electro Chemical Research Institute for collection of Scanning Electron Microscope images of steel plates exposed to Chlorine medium to assist in their pitting corrosion study on petroleum pipelines.
- Developed and trained a fast RCNN model to detect corrosion pits in metals and compared it's performance with a conventional morphological image processing approach - Watershed algorithm. [Research overview]

JPMORGAN CHASE & CO | Technology Analyst Intern
May 2018 – July 2018 | Bangalore, India
- Interned with the Global Technology Infrastructure team on Load Balancer Management Services project.
- Developed & tested RESTful APIs to automate the provisioning of Load Balancers using Django which reduced the time of provisioning by 96%.

DELTA FORCE | Developer
August 2016 – May 2019 | Tiruchirappalli, India
- Member of the web team of NIT Trichy which is responsible for the maintenance of the institute website and the development, administration and updating of content on the institute intranet.
- Developed RESTful APIs with RFID integration for distribution of food cards, t-shirts and to manage events participation of 4000+ students for college fests.
- Led a team of 7 engineers to develop Pragyan Premier League, an algorithmically simulated virtual cricket management game which was played by 1000+ participants.
- Served as the treasurer of the team and handled the team's budget and administrative work.

VOLUNTEERING

TEACHING
• Conducted basics of programming workshop for NITT's freshmen.
• Taught Linux and Python basics for students of Mepco Schlenk Engg. College as a part of Vortex-NITT.

ENGINEERING
• Developed User Interface for Sahapedia.org as a part of the Force for Good initiative by JPMorgan Chase & Co.
• Developed Course Fair portal of NIT Trichy.

OTHER
• Cleaned NIT Trichy's parks as a member of National Service Scheme.
• Organised the first intra-college hackathon - Transfinitte at NIT Trichy.
• Volunteered to be a organiser for the Smart India Hackathon 2019 Software Edition at NIT Trichy.

ORGANIZATIONS

ECE ASSOCIATION, NITT
Head of WebOps 2019

PRAGYAN
WebOps 2016-2019

FESTEMBER
WebOps 2016-2018
Workshops and Informals 2016-2018

NITTFEST
WebOps 2017

PROJECTS

BLOOM
[View project]
• Mentored by **Dr.Rajeswari Sridhar**, developed an effective learning solution based on Bloom's taxonomy using Python which provides a holistic learning experience leveraging on mind mapping, keyword extraction and concept analysis using NLP.
• The project was awarded 2nd place in the Singapore-India Hackathon 2018 by the Prime Minister of India.

IMGSCRAPY
[View project]
• Developed an open source python CLI for multithreaded image scraping with support for headless scraping of dynamic websites using python.
• Has more than 800 downloads from pypi.

SEVEN
[View project]
• A cross platform application to suggest restaurants based on parameters like top dishes, reactions and sentiment score extracted using NLP on user reviews from Zomato.
• Winner of Software AG API hackathon 2017

KNOWLEDGE GRAPH GENERATOR
[View project]
• Creates a knowledge graph from a given text using neural coreference, entity recognition and extraction of relation triplets.

DRIVING ASSISTANT
[View project]
• A driving assistant (a dashboard app) to advise the driver on optimal speed , vehicles and pedestrian detection using YOLO object detection.
• Developed using Python (OpenCV, Tensorflow and pygame) with CUDA acceleration.

REACT-FULLSCREEN-SLIDESHOW
[View project]
• Developed an open source React npm package for a fullscreen slideshow (embedded gallery) component
• Has more than 1500 downloads from npm.

AWARDS

2019	1st	Vortex Main Quiz 2019
2018	2nd/40	Singapore India Hackathon 2018
2017	1st/30	Software AG API Hackathon 2017
2015	3rd	Google Startup Weekend 2015