Arjoonn Sharma

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An up to date version of this document may be found at arjoonn.com/cv.

arjoonn.com   github.com/thesage21   gitlab.com/thesage21   Twitter/arjoonn1   Linkedin/in/arjoonn

Education & Employment	Notable (tasks/achievements)

Midpath software
 	
Sept 2022 - current
	- **Director / Software Engineer**
	  - Donations backend for yultimate.org and app.yultimate.org (django, postgres, Linode)
	  - Worked with smaac.in on multiple projects including webapp.smaac.in (vue, htmx, django, flask, ms-sql, e2e cloud, S3, next.js, gitlab.com)
	  - Worked with Resonanz group on Quicktrials.com (Django, postgres, GCP)
	  - Extensive work with docker and self hosted infrastructure (glitchtip, dozzle, grafana, victoria metrics, uptime monitoring)

Instabase.com
 	
Sept 2021 -Sept 2022
	- **Solutions engineer (remote)**
	  - Architecture and implementation of SDLC process at the solution engineering organization.
	  - Building solutions for automated document processing at CITIbank, Royal Bank of Canada, MUFG Investors.
	  - Anchor based value extraction from documents that improved extraction performance by 10-15% on average.
	  - Document clustering across multiple projects and document types in a library restricted environment.
	  - Built tooling to help soleng be more effective on their solutions.
	  - Model building for document understanding based on BERT/DETR.

Smaac Net Solutions Pvt. Ltd
 	
Mar 2021 -Sept 2021
	- **Senior software consultant (remote)**
	  - Architect of web ERP system
	  - Migration of codebase from VB .NET to Python + Vue.js technology stack
	  - Security updates for the application using modern security practices
	- **Training / Hiring**
	  - Trained existing employees in python, vue, web development, database management, and RDBMS normalization techniques.
	  - Helped the firm introduce modern test based hiring practices and reduce it's attrition rate.
	  - Introduced the firm to CI/CD practices and helped them set up their first testing pipelines.

Premiere Digital Services
 	
Oct 2019 - Feb 2021
	- **Software Engineer (remote)**
	  - Worked as a SE on a website built with flask, sqlalchemy, postgresql, redis, nginx, aws, elasticsearch, and fabric.
	  - We work in a fast iteration setup with practices from agile
	  - Wrote the bug fixing flow documentation for the product.
	  - Managed bug triage during IST work hours.
	  - Built several core features for the website including the notifications system for example.
	  - Improved page response times by optimizing bottlenecks in template rendering functions.
	- **PyJaipur** volunteer and meetup organizer (link)
	  - Organize monthly meetups, community calls
	  - Contribute to community software and maintain pyjaipur.org website.
	- **India Linux Users Group Delhi** volunteer and occasional speaker (link)

IIITM-Kerala CUSAT	- **Visiting faculty** AI and knowledge representation (link) - The course was managed over gitlab

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July 2019 - Nov 2019	- Used CI to automate assignment testing - Software training: Git + gitlab for the first year MSc students.

CLAP Research
 	
May 2017 - Oct 2019
	- **Principal engineer**
	  - Lead a team of 7 on the project to launch the first version of the product called Voody.(link)
	  - Lead the team to build the first document tagging system in the company. (link)
	- **Research engineer** on closed domain search system
	  - Built API service using bottle, nginx, mysql, mongodb, pytorch, and tensorflow.
	  - Developed the first document question-answer system in the company, leading to the first beta of the product.
	  - Developed an automated plug-and-play website helper chat bot without the need for the site to expose its APIs.
	- Handled DevOps
	  - Built CT system with gitlab, pytest, and docker
	  - Built CD system with gitlab, docker
	  - Formulated the development cycle and improved feature development speed.
	- Built the interview management website for the company.
	- Signal & Noise: Talk, CET (Fb dev circles)
	- Panelist, Ethics in AI, Dhyuthi (IEEE event) (link)
	- Won **Huddle Kerala** (All India startup pitch)
	- **NASSCOM** emerge 50 winners (link)
	- Singularity University talk about Random Forests (link)
	- Challenges in NLP: Talk, (Fb dev circles)
	- Workshop on ML in NIT-Calicut

Dept of IT & Comm - Govt of Rajasthan Aug 2017 - Feb 2018	- Built API server + phoneGap app for Aanganwaadi project - **Lead dev** on 2 person team for project

Ernst & Young
 	
Jan 2017 - Apr 2017
	- **Advanced data analytics intern** doing Monte Carlo based mutual fund inflation rate calculation
	- Increasing sample efficiency of classic Q learning system as MSc project
	- Won all India hackathon by **Govt of Rajasthan** 3/3700 (link)
	  - Built a website to train your own image classifiers and receive predictions on new data.
	  - Proposed that it may be used to provide expertise to remote villages where actual expert person might not be able to travel.

64 Squares June 2016	- Built web dashboard for analytics app - Performed data cleaning, deduplication - Participated in Kaggle contest under company supervision
Certifications	- TOEFL(108/120) exam 16 Feb 2019 - GRE(327/340+4/6) exam 31 Dec 2018 - NET exam qualified for assistant professor 5 Nov 2017 - GATE(483) exam 11 Feb 2017
MSc. Computational Science IIITM-Kerala	- First division, **university rank 3** - **Ranked 7 / 3902** in the HackerEarth SigTuple image segmentation challenge. (link) - Kaggle Kernels Expert with a **world rank of 39/ 55,000** (link) - Featured on the Kaggle Blog, No free Hunch. (link) - Founded SigML(Special Interest Group, Machine Learning)

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(CUSAT) Aug 2015 - Apr 2017	- Won **3rd prize (project contract worth 7.5 Lakh INR)** in all India Rajasthan IT Day Hackathon (link)

BSc. Physical Sciences with computer science
 	
St. Stephen's College DU
 	
July 2012 - May 2015
	- First division
	- Received All India Scholarship for Higher Education (**INSPIRE - Department of Science and Technology Govt of India**) for **all 3 years** of BSc. This is awarded to students who were ranked within 1 % out of 8,15,000 students who passed the exam that year (2012).
	- **Vikas Dhaka Scholarship** awardee.
	- President of the Web Team
	    - Built the college website prototype along with a friend which later formed the base for the new website.
	    - Submitted a report on digitizing activities in the college to the principal which was later acted upon.
	- (**Head Programmer**) We worked to build the Computer Society from 5 to 32 members in 2 academic years.

DPS Sushant Lok 2009-2012	- **AISSCE, AISSE (CBSE) Exams** (School rank 2 in class 12 exams) - AFS All India "**India Thailand Student Exchange**" member of a team of 16 students from across India. - **National CBSE Science Exhibition** - All India winner from all schools affiliated to Central Board of Secondary Education (link). - **Head boy** in class 12 and **Vice head boy** in class 11 - Formulated the student council structure during that time.

References of the following professors can be made available.
- Dr Rajashree MS Vice Chancellor APJ Abdul Kalam Technological University
- Dr Asharaf S Professor IIITM-Kerala
- Dr T.K. Manoj Professor IIITM-Kerala

Memorable Events/Code/Creations

- Function type signature search https://github.com/theSage21/sigsearch
- PyJaipur core member https://github.com/orgs/PyJaipur/people
- Reproduction of the Lorentz embeddings paper https://github.com/theSage21/lorentz-embeddings
- Author of bottle-tools https://bottle-tools.readthedocs.io/en/latest/
- Reproduction of Stochastic Delta Rule https://github.com/theSage21/stochastic_delta_rule
- Recurrent Weighted Average implementation https://github.com/theSage21/torchzoo/
- Line laser based 3d point cloud generation https://github.com/theSage21/3d-scanner
- Did @dabeaz compilers course https://www.dabeaz.com/compiler.html
- Contributed new dataset to Facebook ParlAI https://github.com/facebookresearch/ParlAI/pull/983
- OSFY: An overview of AI https://opensourceforu.com/2017/12/story-behind-pervasive-ai/
- OSFY: Managing your reading with espeak https://opensourceforu.com/2016/06/bookread-software-reads-books-aloud/
- OSFY: Open Judge https://opensourceforu.com/2015/11/openjudge-an-online-judge-for-offline-programming-contests/
- OSFY: Converting plaintext to handwriting https://opensourceforu.com/2016/11/converting-plain-text-handwritten/
- OSFY: Coding in indic languages https://opensourceforu.com/2015/09/pytongue-programming-in-non-english-languages/