

## Education

- **University of Helsinki** Helsinki, Finland  
*PhD in Computer Science* Aug 2020 - present
  - Researcher in Algorithmic Data Science group
  - Supervisor: Prof. Michael Mathioudakis
  - **Thesis Topic:** Maintaining and Scaling Machine Learning Pipelines
- **Aalto University** Otaniemi, Finland  
*Master of Science in Machine Learning, Data Science and AI* Sep 2018 - May 2020
  - Full Tuition Scholarship Student
  - **Thesis Topic:** Vote Prediction Models for Signed Social Network
- **R.V College Of Engineering** Bangalore, India  
*Bachelor of Engineering in Computer Science and Engineering* Aug 2014 - May 2018
  - 3<sup>rd</sup> rank in department
  - **Thesis Topic:** “Extract-Transform-Load of Financial Transaction Tax data using Elasticsearch”

## Work Experience

- **University of Helsinki** Helsinki, Finland  
*Teaching Assistant, Network Analysis* Jan 2021- Mar 2021
  - Worked with Prof. Michael Mathioudakis
  - Created and graded assignments
  - Organized tutorials on advanced concepts
- **Aalto University** Otaniemi, Finland  
*Research Assistant, Data Mining Group* May 2019- May 2020
  - Worked with Prof. Aristides Gionis and Bruno Ordozgoiti
  - **Wikipedia RfA Project:** predicting voter behaviour in Wikipedia elections networks
  - **Diversified Item Selection Project:** implemented and scaled up experiments
- **Aalto University** Otaniemi, Finland  
*Teaching Assistant, Algorithmic Methods of Data Mining* Sep 2019- Dec 2019
  - Worked with Prof. Aristides Gionis and other teaching assistants
  - Created assignments and arranged exercise sessions
  - Managed course graders and project on balanced graph clustering
- **Goldman Sachs** Bangalore, India  
*Summer Thesis Worker* Jan 2018 - May 2018
  - Worked in **Client Experience Engineering** team on **client email prioritization**
  - Used **Conditional Random Fields** (CRFs) to tag and remove *disclaimers* from client emails
  - Performed **sentiment analysis** and Named Entity Recognition(NER) on emails
  - Platforms Utilized: pycrfsuite, sklearn, Protobuf, spaCy, Stanford CoreNLP
- **Goldman Sachs** Bangalore, India  
*Summer Analyst* May 2017 - July 2017
  - Worked in **Tax Operations Technology** team
  - Imported large volume tax from DB2, Sybase IQ databases to **Elasticsearch** cluster
  - Set up, maintained and optimized multi-node Elasticsearch cluster in production environment

## Skills

**Languages:** Python, C/C++, Unix Shell, R

**Machine Learning Frameworks:** PyTorch, TensorFlow, scikit-learn, NumPy, Pandas, CUDA

**Graph and Network Tools:** NetworkX, PyTorch Geometric, SNAP

**Database Tools:** Spark, Neo4J, MariaDB, Elasticsearch

**Miscellaneous:** Excellent troubleshooting and debugging skills

## Languages

**Mother Tongue:** Tamil

**English:** Proficiency Level: C2. IELTS score: 8.5

## Hobbies and Extracurricular Activities

### Parliamentary Debating

- **President** of Helsinki Debating Society (HDS) from Sep 2020 till Jan 2023
- **Finnish Debate Champion 2019** at FINDA University Championship 2019, Finland

## Publications

- Ananth Mahadevan and Michael Mathioudakis. Cost-aware retraining for machine learning. *Knowledge-Based Systems*, 293:111610, 2024
- Ananth Mahadevan, Michael Mathioudakis, Eetu Mäkelä, and Mikko Tolonen. Optimizing a data science system for text reuse analysis. *arXiv*, 2024
- Yann Ryan, Ananth Mahadevan, and Mikko Tolonen. A comparative text similarity analysis of the works of bernard mandeville. *Digital Enlightenment Studies*, 1:28 – 58, 2023
- David Rosson, Eetu Mäkelä, Ville Vaara, Ananth Mahadevan, Yann Ryan, and Mikko Tolonen. Reception reader: Exploring text reuse in early modern british publications. *Journal of Open Humanities Data*, Apr 2023
- Ananth Mahadevan, Arpit Merchant, Yanhao Wang, and Michael Mathioudakis. Robustness of sketched linear classifiers to adversarial attacks. In *Proceedings of the 31st ACM International Conference on Information & Knowledge Management*, CIKM '22, pages 4319–4323, 2022
- Arpit Merchant, Ananth Mahadevan, and Michael Mathioudakis. Scalably using node attributes and graph structure for node classification. *Entropy*, 24(7), 2022
- Ananth Mahadevan and Michael Mathioudakis. Certifiable unlearning pipelines for logistic regression: An experimental study. *Machine Learning and Knowledge Extraction*, 4(3):591–620, 2022
- Bruno Ordozgoiti, Ananth Mahadevan, Antonis Matakos, and Aristides Gionis. Provable randomized rounding for minimum-similarity diversification. *Data Mining and Knowledge Discovery*, 36(2):709–738, March 2022

## Links and Other details

**Date of Birth** 31st July 1996

**Nationality** Indian

**GitHub** <https://github.com/ananth1996> **GitLab** <https://version.helsinki.fi/mahadeva>

**LinkedIn** [www.linkedin.com/in/ananth-mahadevan-75411651](http://www.linkedin.com/in/ananth-mahadevan-75411651)

**University Profile** <https://researchportal.helsinki.fi/en/persons/ananth-mahadevan>

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