AKSHAY AGGARWAL

⌂ /Akshayanti in /akshayaggarwal02 ✉ akshayantimatter@gmail.com 📍 Prague, Czechia

🎓 EDUCATION

Master of Science (M.S.), Computational Linguistics *Sept 2017 - Sept 2020*
Charles University (UK), Czechia Part of Erasmus Mundus Dual Degree

Master of Science (M.S.), Computational Linguistics *Sept 2017 - Sept 2019*
University of the Basque Country (UPV-EHU), Spain Part of Erasmus Mundus Dual Degree

International Student Exchange *Jan - June 2016*
Université de Technologie de Compiègne (UTC), France

Bachelor of Technology (B.Tech), Information Technology *July 2012 - June 2016*
Vellore Institute of Technology (VIT), India

💼 WORK EXPERIENCE

Software Engineer at **Cisco**, Czechia *Aug 2023 - Present*
Backend Engineer, SNA Forensics team

- Primary responsibilities include facilitating feature delivery for the SNA product, conducting manual regression testing, and maintaining project integrity.

- Played a key role in the migration project to integrate the SNA product from SecureX to XDR. Collaborated with cross-functional teams to ensure seamless integration and functionality. **Key technologies:** Scala, Java, Network Security.

- Initiated and led the migration project to transition API documentation from RAML to OpenAPI, streamlining the process and enhancing interoperability with industry-standard tools and frameworks.

- Led a stretch assignment to develop a sophisticated FAQ bot using NLP algorithms integrated with Confluence/wiki pages. **Key technologies:** Python, Langchain, ChatGPT.

- Actively participated in multiple company-wide and business unit-wide hackathons, contributing to innovative projects focused on enhancing security, documentation, and customer experience.

Software Engineer at **Twilio**, Czechia *Nov 2020 - June 2023*
L2 Software Engineer, Flex Insights Real-Time *Oct 2021 - June 2023*
L1 Software Engineer, Flex Insights *Nov 2020 - Sep 2021*
Intern Software Engineer, Flex Insights *Apr - Oct 2020*

- Participated in post-Private Beta delivery and maintenance of a low latency, highly available distributed system that used Kafka Streams to aggregate data in near real time, providing end-to-end data refresh latency of under 30s. **Key Technologies:** Java, Docker, Kafka, AWS

- Collaborated with team members, including SDET, to enhance the test suite with Mutation Testing, Chaos Testing, Load Testing, E2E testing. **Key technologies:** Buildkite, Jenkins, PiTest, Cucumber, Selenium, TypeScript, Mockito, Docker

- Led the implementation of Infrastructure-as-Code (IaC) practices within the organization, assuming responsibility as the primary point person for managing team resources. **Key Technologies:** Terraform, Infrastructure-as-Code (IaC)

- Frequently served as a **guest engineer** for various teams, gaining exposure to diverse infrastruc-

tures and deepening understanding of interdependent components within the company

- ○ As **Interview Panelist**: Conducted technical and non-technical interviews and assessments for prospective candidates, evaluating their skills and qualifications for the organization.

★ SKILLS AND INTERESTS

Languages: Bash, Java, Python3, Terraform

Tools and Technologies: Git, Docker, Kafka, TensorFlow2, scikit-learn, pandas, numpy, matplotlib

Areas of Interest: Morphology, Syntax, Dependency Parsing, Deep Learning, Machine Learning, Machine Translation, Language Independent Tools, Low Resource Languages, Indic Languages

SELECTED PUBLICATIONS

Akshay Aggarwal and Chiara Alzetta. **Atypical or Underrepresented? A Pilot Study on Small Treebanks**. In *Proceedings of the Eighth Italian Conference on Computational Linguistics (CLiC-it 2021)*, volume 3033 of *CEUR Workshop Proceedings*, Milano, Italy, 26–28 January 2022. CEUR-WS.org. URL `http://ceur-ws.org/Vol-3033/paper78.pdf`

Akshay Aggarwal and Daniel Zeman. **Estimating POS Annotation Consistency of Different Treebanks in a Language**. In *Proceedings of the 19th Workshop on Treebanks and Linguistic Theories*, pages 93–110, Düsseldorf, Germany, 27–28 October 2020. Association for Computational Linguistics. doi: dx.doi.org/10.18653/v1/2020.tlt-1.9. URL `https://www.aclweb.org/anthology/2020.tlt-1.9`

Akshay Aggarwal. **Consistency of Linguistic Annotation**. Master's thesis, Charles University, Faculty of Mathematics and Physics, Institute of Formal and Applied Linguistics (ÚFAL), Prague, Czechia, 2020. URL `https://dspace.cuni.cz/handle/20.500.11956/120867`. Thesis Supervisor Zeman, Daniel

SELECTED PROJECTS

Google Finance Automator   /Google-Finance-Automation
Allows a user to automatically login and make changes to their stock portfolio on Google Finance UI with the help of Python3, Selenium and ChromeWebDriver

What's Your Grammatical Gender?   /what-is-your-gender
Identification of gender for a given noun using bootstrapping algorithm, using only true-gender instances from the language

Cross-Lingual Tagging for Telugu   /cross-lingual-tagging
Cross-lingual tagging with single/multiple sources and parameter estimation to improve projection quality

♔ AWARDS AND CERTIFICATIONS

- ○ Recipient, Erasmus+ Mobility grant by Charles University   2018

- ○ Recipient, Charpak Exchange Scholarship by French Embassy in India   2016