# Sunkulp Ananthanarayan

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## Research Interests

Language documentation/description

- Contact linguistics (mixed languages, language shift, multilingual communities)
- Historical linguistics, esp. grammaticalization
- Computational linguistics, esp. software in documentation contexts
- Sociolinguistics, esp. variationist
- Indigenous and minoritized language activism, revitalization

### Education

2021 B.A., Linguistics, University of Texas at Austin (UT Austin)

Cumulative GPA: 3.7723 Major GPA: 4.0000

Certificate: Elements of Computing

2018 Semester Exchange in Linguistics, Australian National University

(ANU)) GPA: 4.0000

Coursework:

Advanced Sociophonetics

Qualitative Methods in Linguistics

Learning an Indigenous Australian Language (Gamilaraay)

Dictionaries and Dictionary Making Field Methods (Motu, Austronesian)

## Research and Work Positions

Research positions

2021-Pres. Ontology developer. Active Interpretation of Disparate Alternatives Re-

search Group (AIDA).

Supervisor(s): Dr. Katrin Erk

Organization: Defense Advanced Research Projects Agency (DARPA)

- $\bullet$  Annotated and evaluated contradictory texts with disinformation about SARS-CoV-2/COVID-19
- Developed an ad-hoc ontological mapping through conversation between teams
- Ran metrics on similarity of graph nodes to determine gold standard for comparison with machine-parsed texts
- Contributed to building a more thorough model of claims involving belief states and temporal/aspectual dimensions

## 2016-2020 Research Assistant. Naduhup Documentation Research Group.

Supervisor(s): Dr. Patience Epps

Organization: UT Austin

- Reformatted dictionary, fixing encoding problems and inconsistencies, and incorporated it into a database
- Conducted analyses about historical contact and evolution of Naduhup languages

## 2018-2019 Research Assistant. Bilingual Annotation Task Force.

Supervisor(s): Drs. Jacqueline Toribio and Barbara Bullock

Organization: UT Austin

- Validated annotations of code-mixed language texts
- Vectorized and reduced dimensionality of texts and applied biological and statistical models to propose analyses about code-mixing

## 2018 Visiting Fellow. Matukar Panau Phonetic Variation Project.

Organization: The ARC Centre of Excellence for the Dynamics of Language

- Cleaned minorioty language data and pruned it for primary investigation to find points of interest
- Created pronunciation dictionary of annotated dataset
- Modelled audio to create automated text alignment with audio
- Ran algorithm for recursive performance of alignment
- Programmed statistical models to understand the sociolinguistic scene of this language

# Work positions

#### 2021-Pres. Pipeline advisor, farmhand. Tazo Farms, LLC.

- Observed steps in supply chain for indoor agriculture, providing recommendations based on personal research
- Performed maintenance on hydroponic systems
- Planted, harvested, and processed products of the farm

## 2020-2021 AI Specialist Intern. Appen Butler-Hill.

- Researched industry standards for user behavior data evaluation
- Mapped text-based data into abstracted web ontology
- Compared knowledge graphs of varied texts

## 2016-Pres. Spanish Tutor. Independent.

- Practiced conversational Spanish with students in one-on-one and group settings
- Generated and executed lesson plans for students just beginning learning Spanish both with and without formal lessons, as well as those with experience
- Worked with students to reach writing and comprehension goals

## 2016-Pres. Hindi Tutor. Independent.

• Leveraged linguistics experience in comparing Hindi and English patterns to augment learning beyond basics

• Practiced conversational Hindi with students in small scale tutorials

## 2019 Machine Learning Instructor. iD Tech.

- Redesigned faulty curriculum for teenager-oriented machine learning lessons
- Led classes through tutorials about machine learning algorithms and implementations
- Guided students in individual projects utilizing what they learnt

# 2018 **Primary Web Developer**. Gamiliaraay (Kamilaroi) Revitalization Project.

- Consulted with indigenous community representatives to design a site oriented toward cultural preservation
- Recycled and revamped existing designs to better match the specification

## 2017 **Programming Instructor**. Wize Academy.

- Created a curriculum of lessons to teach coding aimed towards Minecraft
- Led ten lessons in programming for a class of 9 children

# 2016 Theatre Camp Counselor. New Age Montessori School.

- Ran a weeklong theatre camp for young children (elementary school)
- Directed a short play, incorporating the students' ideas consistently
- Planned curriculum to integrate with teaching blocking and acting for the play

# Workshops and Reading Groups

# Workshops

2022	Community-Centered L	Language .	Documentation.	Host:	Sylvia	Schreiner,
	George Mason Universit	ty. Linguis	stic Society of A	merica	Annual	Meeting

- 2019 Phylogenetics: Computational Historical Linguistics. Host: Claire Bowern, Yale University. Linguistic Society of America Annual Meeting
- 2019 Documenting Multilingualism. Hosts: Lenore Grenoble, University of Chicago and Jack Martin, University of William & Mary. Linguistic Society of America Annual Meeting.
- 2018 Using your own language data for speech recognition. Host: Daan van Esch, Google. University of Melbourne.
- 2018 Directionality and Associated Motion Workshop. Host: Harold Koch, Australian National University. Australian National University.
- Working in Tech-It's Not Just for Computational Linguists. Hosts: Samantha Beaver, Memra Language Services; Sam Cooper, NoRedInk; Christopher Stewart, Google; Frankie Pennington Sensory, Inc.; Brent Woo, Amazon. Webinar by Linguistic Society of America's Linguistics Beyond Academia Special Interest Group
- 2018 Support Vector Machines as a Sociollinguistic Tool. Host: Tyler Kendall, University of Oregon. New Ways of Analyzing Variation (NWAV) 47
- 2017 Sociophonetics Workshop: Big Data and Social Research. Host: Malcah Yaeger-Dror, University of Arizona. UT Austin.

# Groups and Seminars

2021-Pres.	Linguistic theory reading group (Monash University)
2017-Pres.	${\it Graduate\ seminar\ for\ research\ in\ documentary/descriptive\ linguistics\ (UTAustin)}$
2016-Pres.	Undergraduate Linguistics Society (UT Austin)
2020-2021	Formal approaches to morphology (ANU)
2019-2020	Grammatical theory reading group (ANU)
2017-2020	South Americanist seminar (UT Austin)
2018-2019	Phonetics discussion (ANU, CoEDL)
2018	Grammar writing (ANU, CoEDL)
2018	Language evolution and change (ANU, CoEDL)
2018	Programming in R for linguistics (CoEDL)

# Awards and Grants

2020	Unrestricted Endowed Presidential Scholarship (Office of Financial Aid and Scholarship).
2019	President's Award for Global Learning (International Office).
2019	Unrestricted Endowed Presidential Scholarship (Office of Financial Aid and Scholarships).
2018	<b>Liberal Arts Honors Upper Division Scholarship</b> (Liberal Arts Honors).
2018	<b>Transdisciplinary Innovation Grant</b> (The Centre of Excellence for the Dynamics of Language).
2018	<b>Undergraduate Research Scholarship</b> (School of Undergraduate Studies).
2018	Undergraduate Research Apprenticeship Program (College of Liberal Arts).
2018	Liberal Arts Honors Research/Conference Award (Liberal Arts Honors).
2017	Liberal Arts Honors Scholarship (Liberal Arts Honors).
2017	Liberal Arts Undergraduate Research Scholarship (Office of the Vice President for Research).
2017	Liberal Arts Undergraduate Research Scholarship (Office of the Vice President for Research).
2017	<b>Liberal Arts Honors Upper Division Scholarship</b> (Liberal Arts Honors).

# 2017 Scholarship for Exchange Programs (College of Liberal Arts).

# Conference Presentations

- Ananthanarayan, Sunkulp, Eri Kashima, Siva Kalyan, and Naomi Peck. Feb. 2019. **Linguistic Cartography: Mapping Linguistic Theory**. Presented at The Texas Linguistics Symposium, Austin, Texas, United States
- Epps, Patience and Sunkulp Ananthanarayan. Jan. 2019. Society for the Study of the Indigenous Languages of Latin America (SSILA 2019). Stability in grammatical morphology: A Naduhup casestudy (Amazonia). Presented at The Society for the Study of the Indigenous Languages of the Americas, New York City, New York, United States
- 2018 Ananthanarayan, Sunkulp. Feb. 2018. **Documentation of Dâw and Tools for Comparative Analysis**. Presented at Centre of Excellence for the Dynamics of Language (CoEDL) Fest, Melbourne, Victoria, Australia
- 2018 Ananthanarayan, Sunkulp, Eri Kashima, Siva Kalyan, and Naomi Peck. July 2018. **Linguistic Cartography: Mapping Linguistic Theory**. Presented at CoEDL ANU Linguistics Seminar, Canberra, ACT, Australia
- González, Simón, James Grama, Sunkulp Ananthanarayan, Danielle Barth, and Catherine Travis. Oct. 2018. **Opening the door for forced-alignment to minority languages**. Paper presented at *New Ways of Analyzing Variation* 47, New York City, New York, United States
- González, Simón, Catherine Travis, James Grama, Danielle Barth, and Sunkulp Ananthanarayan. Dec. 2018b. Recursive forced alignment: A test on a minority language. Presented at Speech Science and Technology Conference (SST2018), Sydney, New South Wales, Australia
- Aguirre, A., S. Ananthanarayan, E. Frazier, N. Grant, K. Hall, R. Law, and L. Wagner. May 2017a. From Documentation to Community Resources: Developing Pedagogical Materials for Naduhup Languages in Northwestern Brazil. Paper presented at UT Undergraduate Research Bazaar, Austin, Texas, United States
- Aguirre, A., S. Ananthanarayan, E. Frazier, N. Grant, K. Hall, R. Law, and L. Wagner. May 2017b. From Documentation to Community Resources: Developing Pedagogical Materials for Naduhup Languages in Northwestern Brazil. Paper presented at UT Undergraduate Linguistics Research Symposium, Austin, Texas, United States
- 2017 Ananthanarayan, Sunkulp. Oct. 2017a. **Documenting Dâw**. Undergraduate Research Showdown Research Communication Competition, Austin, Texas, United States
- 2017 Ananthanarayan, Sunkulp. Nov. 2017b. **Invited Lecture: Dâw Fieldwork**. Presented at Seminar in Language and Culture in Amazonia, Austin, Texas, United States

# Publications and Write-ups

Epps, Patience and Sunkulp Ananthanarayan. 2021. **Stability in grammatical morphology: An Amazonian case-study**. Diversity in Language Change: Historical Linguistics and Endangered Languages. Ed. by Patience Epps, Daniel Law, and Na'ama Pat-El. Series in Historical Linguistics. Routledge

González, Simón, Catherine Travis, James Grama, Danielle Barth, and Sunkulp Ananthanarayan. 2018a. Recursive forced alignment: A test on a minority language. Proceedings of the 17th Australasian International Conference on Speech Science and Technology. Ed. by Julien Epps, Joe Wolfe, John Smith, and Caroline Jones, pp. 145–148

2017 Ananthanarayan, Sunkulp. 2017c. Undergraduate Spotlight: Sunny Ananthanarayan. UT Austin linguistics newsletter. URL: https://liberalarts.utexas.edu/linguistics/about/newsletters/fall-2018/ananthanarayan-newsletter-feature-fall-2018.php

2017 Epps, P., K. Obert, L. Storto, C. Assis, and S. Ananthanarayan. 2017. **Histórias de Vida Da Comunidade Waruá**. CreateSpace Independent Publishing Platform. ISBN: 9781976480324. URL: https://books.google.com/books?id=izHbtAEACAAJ

## Service

#### Conference work

Volunteer Conference on the Indigenous Languages of Latin America (2019)

Volunteer Hispanic Linguistics Symposium (2018)

Volunteer Linguistic Society of America Annual Meeting (2017)

Moderator Conference on the Indigenous Languages of Latin America (2017)

#### Event organization

Organizer Linguistic Society of America Meeting Wikipedia Edit-a-thon (2022)

Organizer Linguistic Society of America Committee on LGBTQ+ Issues in Linguistics

Pride Month Wikipedia Edit-a-thon (2021)

Organizer International Year of Indigenous Languages 2019 Wikipedia Edit-a-thon

(2019)

Organizer Indigenous Arts Fest (2018)

Organizer Indigenous Arts Fest: Pachamamanchikwan Kawsakunchik (2017)

#### Departmental Service

Undergrad- UT Austin Department of Linguistics and Associated Students of Linguisuate liaison tics (graduate student organization) (2018-Pres)

Authorized UT Latin Americanist Linguists and Anthropologists (2019-2021)

Rep.

Oligarch UT Austin Undergrad Linguistics Society (2017, 2020-2021)

President UT Austin Undergraduate Linguistics Society (2019)

VP UT Austin Undergraduate Linguistics Society (2018)

Other

Collabora- Creating Inclusive and Representative Wikipedia Articles for Indigenous

tor Languages (2021; preparation for International Decade of Indigenous Lan-

guages, 2022-2032)

Editor Wikimedia projects, esp. Wikipedia and Wiktionary; active participant in

Edit-a-thons (2014-Pres.)

Producer Foot in the Door Theatre Troupe (2017-2020)

Technician Foot in the Door Theatre Troupe (2016-2020)

Technician Creative Arts+Theatre UT Austin (2016-2020)

Director Hitch-Hiker's Guide to the Galaxy Stage Adaptation (2019)

## Other Professional Activities & Skills

#### Fieldwork

2017 Dâw (Naduhup). Waruá/São Gabriel da Cachoeira, Amazonas, Brazil; Ped-

agogical material creation, lexicography, recent and distant history documentation, material culture documentation

Materials created during the project:

• Dicionário Dâw, a Dâw-Portuguese-English Dictionary

• Archived materials at the Archive of Indigenous Languages of Latin America (AILLA identifier for full language collection: ailla:254973)

Professional Memberships

2021-Pres. LSA Working Group on Demographic Data

2019-Pres. LSA Committee on LGBTQ+ Issues in Linguistics (COZIL)

2019-Pres. LSA Committee on Ethnic Diversity in Linguistics (CEDL)

2019-Pres. Committee on Gender Equity in Linguistics (COGEL; formerly COSWL)

2017-Pres. Society for the Study of the Indigenous Languages of Latin America

(SSILA)

2018-2019 LSA LGBTQ+ Issues in Linguistics Special Interest Group

2016-2018 LSA Committee on AP Linguistics

2016-Pres. Linguistic Society of America (LSA)

## Languages

English, Native

Latin American Spanish, Fluent

Brazilian Portuguese, Advanced conversational

Spoken and Written Hindi (Heritage), Conversational

Spoken Marathi (Heritage), Intermediate

Classical Latin, Intermediate

Intermediate reading and listening capability in various other Italo-Western Romance languages, as well as German.

#### Software

Praat, Proficient

SIL's Field Language Explorer, Proficient

SIL's Toolbox, Proficient

ELAN Audio and Text Annotation, Proficient

Montreal Forced Aligner, Proficient

Jupyter Notebooks, Proficient

Git (GitHub, GitLab), Proficient

Lawrence Antony's AntConc Concordancing Tool, Adequate

## Programming and Markup Languages

Python, Proficient

R, Proficient

LATEX, Proficient

HTML5, Proficient

JavaScript & JQuery, Intermediate

CSS & Bootstrap CSS, Intermediate

Praat scripting, Intermediate

MediaWiki markup, Intermediate

Shell scripting, Adequate

MySQL, Adequate

PHP3, Adequate

### Other technical skills

Regular Expressions

Propositional, Predicate, and Modal logic

Set theory

Semantic Web, Knowledge Graphs, and Ontologies Machine learning model architectures

Agile development

Extreme Programming