Artificial Intelligence and NLP Engineer

# LOGAN LEBANOFF

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loganlebanoff.github.io

## EDUCATION

**UNIVERSITY OF CENTRAL FLORIDA** – Orlando, FL

- *Ph.D., Computer Science*. (Fall 2016 – Fall 2020)
- Advisor: Dr. Fei Liu, UCF NLP Group
- *Research interests*: Large Language Models, Deep Learning, NLP, Natural Language Generation

**UNIVERSITY OF CENTRAL FLORIDA** – Orlando, FL

- *M.S., Computer Science*. (Fall 2016 – Fall 2019)

**UNIVERSITY OF CENTRAL FLORIDA** – Orlando, FL

- *B.S., Computer Science.* (Fall 2013 – Spring 2016)
- GPA: 3.99/4.0

## EXPERIENCE

**SOARTECH** – Orlando, FL
*Artificial Intelligence Engineer III* (Spring 2020 – present)

- Trained LLMs, developed specialized document parsing and RAG pipelines, performed LLM evaluations, and set up chat interfaces.
- Led multiple AI projects as tech lead to successful outcomes, and published papers on work.
- Developed a semantic parser for speech recognition engine using BERT, leading to improvement of 38% → 92% intent accuracy and 5% → 73% accuracy on multiple intents. Published work in EACL 2021 workshop.

**ADOBE RESEARCH** – San Jose, CA
*Research Intern* (Summer 2019)

- Developed models for incorporating coreference resolution into automatic text summarization models. Published work in EMNLP 2020.
- Contributed several models for summarization, semantic similarity, and paraphrase detection to the Adobe Sensei internal machine learning platform.

**WYCLIFFE ASSOCIATES** – Orlando, FL
*Software Developer Intern* (Summer 2016)

- Created application for translators to efficiently verify Bible translations, using ReactJS.
- Worked in a team in the Agile/Scrum methodology. Front-end and back-end development.

**UCF PROGRAMMING TEAM** – Orlando, FL
*Programming Team Member* (Fall 2015 – Spring 2016)

- Competed in the 2015 ACM Southeast USA Regional Intercollegiate Programming Contest and placed in 15th out of > 100 teams in the southeast region.
- Coded numerous algorithms relating to graphs (DFS, BFS), dynamic programming (Knapsack, Coin change), data structures (Disjoint set, Binary-indexed tree) and more.

**COGNITUTOR, LLC** – Winter Haven, FL
*Lead Web Developer* (Fall 2014 – Spring 2016)

- Worked in team of 3 to create website for CogniTutor, a tutoring startup founded by sister, Loni Lebanoff. Included setting up web hosting, domain name, and database.
- Created functionality for registration, log-in, searching for tutors in ASP.NET and SQL Server

**UCF CENTER FOR RESEARCH IN COMPUTER VISION** – Orlando, FL
*Undergraduate Researcher* (Summer 2015)

- Developed model to count the number of people in images of dense crowds using Convolutional Neural Networks using MATLAB.
- Wrote a CVPR-style paper presenting 7% improvement over previous method.

**PROGRAM WORKS INC.** – Orlando, FL
*Software Developer Intern* (Fall 2013 – Spring 2015)

- Front-end and back-end development in ASP.NET, HTML, CSS, JavaScript
- Created an export for third party integration with standard payroll systems that required overtime calculation and multiple pay levels per employee.
- Developed a service in C# for a client, Cable News Network (CNN), that synchronizes with their calendar system using their REST API.

## PUBLICATIONS

Nick Koenig, …, **Logan Lebanoff**, Henry Phillips, Charles Newton. Improving measurement and prediction in personnel selection through the application of machine learning. In Personnel Psychology, 2023. **(PPsych 2023).**

**Logan Lebanoff**, Nicholas Paul, Christopher Ballinger, Patrick Sherry, Gavin Carpenter, Charles Newton. A comparison of behavior cloning methods in developing interactive opposing-force agents. In the International FLAIRS Conference Proceedings, 2023. **(FLAIRS 2023).**

**Logan Lebanoff,** Bingqing Wang, Zhe Feng, and Fei Liu. Modeling endorsement for multi-document abstractive summarization. In Proceedings of the Third Workshop on New Frontiers in Summarization. **NewSum in ACL 2021).**

**Logan Lebanoff**, Charles Newton, Victor Hung, Beth Atkinson, John Killilea and Fei Liu. Semantic Parsing of Brief and Multi-Intent Natural Language Utterances. In the *Second Workshop on Domain Adaptation for NLP*. **(Adapt-NLP in EACL 2021).**

**Logan Lebanoff**, Franck Dernoncourt, Doo Soon Kim, Lidan Wang, Walter Chang, and Fei Liu. Learning to Fuse Sentences with Transformers for Summarization. In *Empirical Methods in Natural Language Processing*, Virtual. (**EMNLP 2020**).

**Logan Lebanoff**, Franck Dernoncourt, Doo Soon Kim, Walter Chang, and Fei Liu. A Cascade Approach to Neural Abstractive Summarization with Content Selection and Fusion. In *Asia-Pacific Chapter of the Association for Computational Linguistics and the International Joint Conference on Natural Language Processing*, Virtual. (**AACL-IJCNLP 2020**).

**Logan Lebanoff**, John Muchovej, Franck Dernoncourt, Doo Soon Kim, Lidan Wang, Walter Chang, and Fei Liu. Understanding Points of Correspondence between Sentences for Abstractive Summarization. In *Student Research Workshop of the Association for Computational Linguistics*, Virtual. (**ACL 2020**).

Kaiqiang Song, **Logan Lebanoff**, Qipeng Guo, Xipeng Qiu, Xiangyang Xue, Chen Li, Dong Yu, Fei Liu. Joint Parsing and Generation for Abstractive Summarization. In Thirty-Fourth AAAI Conference on Artificial Intelligence, New York, New York, USA. (**AAAI 2020**).

**Logan Lebanoff**, John Muchovej, Franck Dernoncourt, Doo Soon Kim, Seokhwan Kim, Walter Chang, and Fei Liu. Analyzing Sentence Fusion in Abstractive Summarization. In *Summarization Workshop of Empirical Methods in Natural Language Processing*, Hong Kong. (**EMNLP 2019**).

Sangwoo Cho, **Logan Lebanoff**, Hassan Foroosh, and Fei Liu. Improving the Similarity Measure of Determinantal Point Processes for Extractive Multi-Document Summarization. In Proceedings of the *Association for Computational Linguistics*, Florence, Italy. (**ACL 2019**).

**Logan Lebanoff**, Kaiqiang Song, Franck Dernoncourt, Doo Soon Kim, Seokhwan Kim, Walter Chang, and Fei Liu. Scoring Sentence Singletons and Pairs for Abstractive Summarization. In Proceedings of the *Association for Computational Linguistics*, Florence, Italy. (**ACL 2019**).

**Logan Lebanoff**, Kaiqiang Song, and Fei Liu. Adapting the Neural Encoder-Decoder Framework from Single to Multi-Document Summarization. In *Empirical Methods in Natural Language Processing*, Brussels, Belgium. (**EMNLP 2018**).

**Logan Lebanoff**, and Fei Liu. Automatic Detection of Vague Words and Sentences in Privacy Policies. In Proceedings of the *2018 Conference on Empirical Methods in Natural Language Processing*, Brussels, Belgium. (**EMNLP 2018**).

Kexin Liao, **Logan Lebanoff**, and Fei Liu. Abstract Meaning Representation for Multi-Document Summarization. In Proceedings of the *27th International Conference on Computational Linguistics*, Santa Fe, New Mexico, USA. *(Area Chair Favorite)*. (**COLING 2018**).

## TECHNICAL SKILLS

**Programming Languages:** Python (expert), C++, Java, C#, JavaScript, ReactJS, C, HTML, CSS, Git, Docker

**NLP/ML Tools:** PyTorch, HuggingFace Transformers, TensorFlow, NLTK, SpaCy

**Related Courses:** Natural Language Processing, Machine Learning, Computer Vision, Advanced Computer Vision, Advanced Artificial Intelligence, Analysis of Algorithms, Data Structures, Processes for Object-Oriented Software Development, Senior Design

## SERVICES & AWARDS

**Services:** Mentor for Research Experiences for Undergraduates (REU) 2018-2019

**Conference Reviewer:** IJCNLP 2017, EMNLP 2017, AAAI 2018, PLOS ONE 2019, AAAI 2020, ACL2020

**Awards:** University of Central Florida Presidential Doctoral Fellowship, COLING 2018 Area Chair Favorite, EMNLP 2018 Student Volunteer, ACL 2019 Student Volunteer, UCF Graduate Presentation Fellowship 2018-2019, UCF Student Government Association Conference Registration and Travel Award 2018, Amazon Graduate Research Symposium 2019