

NADER AKOURY

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EDUCATION

University of Massachusetts Amherst Ph.D. in Computer Science	2018 – 2024 (expected) <i>Amherst, MA</i>
University of Massachusetts Amherst M.S. in Computer Science	2018 – 2022 <i>Amherst, MA</i>
Guildhall at Southern Methodist University Graduate Certificate of Interactive Technology in Digital Game Development <i>Thesis: Computer Assisted Storytelling in Video Games</i>	2005 – 2007 <i>Plano, TX</i>
Purdue University B.S. in Computer Science and Mathematics Minor: Psychology	2000 – 2004 <i>West Lafayette, IN</i>

RESEARCH EXPERIENCE

Graduate Research Assistant <i>University of Massachusetts Amherst</i>	Sept 2018 – <i>Amherst, MA</i>
◇ Research fundamental advances in NLP and creative use of language. ◇ Advisor: Mohit Iyyer	
Applied Scientist Intern <i>Amazon, Inc</i>	May 2021 – Aug 2021 <i>Sunnyvale, CA (Remote)</i>
◇ Develop new metrics for automatic evaluation of story generation. ◇ Principal Investigator: Anjali Narayan-Chen	
Remote Research Assistant <i>Auburn University</i>	Jun 2017 – May 2018 <i>Auburn, AL (Remote)</i>
◇ Investigate generative models in computer vision. ◇ Principal Investigator: Anh Nguyen	

PUBLICATIONS

Peer-Reviewed Conference Papers

- ◇ A Framework for Exploring Player Perceptions of LLM-Generated Dialogue within Commercial Video Games
Nader Akoury, Qian Yang, and Mohit Iyyer.
Findings of the Association for Computational Linguistics: EMNLP. 2023.
- ◇ The Perils of Using Mechanical Turk to Evaluate Open-Ended Text Generation
Marzena Karpinska, **Nader Akoury**, and Mohit Iyyer.
Proceedings of the Conference on Empirical Methods in Natural Language Processing. 2021.
- ◇ STORIUM: A Dataset and Evaluation Platform for Machine-in-the-Loop Story Generation
Nader Akoury, Shufan Wang, Josh Whiting, Stephen Hood, Nanyun Peng and Mohit Iyyer.
Proceedings of the Conference on Empirical Methods in Natural Language Processing. 2020.

- ◇ Syntactically Supervised Transformers for Faster Neural Machine Translation
Nader Akoury, Kalpesh Krishna, and Mohit Iyyer.
Proceedings of the 57th Annual Meeting of the Association for Computational Linguistics (Volume 1: Long Papers). 2019.

Workshop Papers

- ◇ Towards Grounded Dialogue Generation in Video Game Environments
Nader Akoury, Ronan Salz, Qian Yang, and Mohit Iyyer.
Creative AI Across Modalities. AAAI 2023.

Preprints

- ◇ Spatial PixelCNN
Nader Akoury and Anh Nguyen.
<https://arxiv.org/abs/1712.00714>. 2017.

GRADUATE AWARDS & HONORS

- ◇ Dean's Outstanding Antiracism Leadership Award 2021

TALKS

- ◇ SynST: Syntactically Supervised Transformers for Faster Neural Machine Translation Apr 2019
Data Science Research Symposium, University of Massachusetts Amherst.

PROFESSIONAL SERVICE

Reviewer

- ◇ ARR Oct 2021 –
- ◇ ACL 2021, 2022 (*top 2.5%*)*, 2023
- ◇ EMNLP 2019, 2020 (*top 10%*)*, 2021 (*top 5%*)*, 2022, 2023
- ◇ NAACL 2021
- ◇ AAAI 2020, 2021
- ◇ CoNLL 2019, 2020

* Outstanding Reviewer

Organizer, Workshop on Narrative Understanding

- ◇ NAACL 2021, 2022
- ◇ ACL 2023

TEACHING EXPERIENCE

Graduate Teaching Assistant

University of Massachusetts Amherst

- ◇ CS685: Advanced Topics in Natural Language Processing Spring 2021
- ◇ CS690D: Deep Learning for Natural Language Processing Spring 2019

GUEST LECTURES

Guest Lecturer

University of Massachusetts Amherst

- ◇ CS576: Game Programming Fall 2023

- ◇ CS590G: Game Programming Fall 2020, Fall 2021
- ◇ CS490A: Applications of Natural Language Processing Fall 2020

OUTREACH

Committee Against Racism and for Equity (Co-chair) Jul 2020 – Feb 2022
University of Massachusetts Amherst

- ◇ Championed creation of a committee supported by the Dean and 60 members comprised of undergrads, grads, faculty, and staff

Black, Indigenous, and LatinX in Tech (Founding Member) Feb 2019 – Feb 2022
University of Massachusetts Amherst

- ◇ An ally support network and educational resource

PhD Applicant Support Program (Co-chair) Fall 2020, Fall 2021
University of Massachusetts Amherst

- ◇ Helped organize 30 PhD students to provide feedback to underrepresented PhD applicants
- ◇ Provided one-on-one feedback to 8 PhD applicants

Early Research Scholars Program (Mentor) Fall 2022, Spring 2023
University of Massachusetts Amherst

- ◇ A multi-institutional effort from UCSD to address underrepresentation of minority students in computing
- ◇ Guided four undergrads conducting NLP research for the first time

Energizing, Mentoring, and Broadening Exposure to Research (Mentor) Spring 2021
University of Massachusetts Amherst

- ◇ Mentor in a pilot program guiding underrepresented undergrads conducting research for the first time

Girls, Inc. Eureka! Coding Workshops (Mentor) Summer and Fall 2019
University of Massachusetts Amherst

- ◇ Introduced CS to underrepresented girls from Holyoke, MA through the use of MIT Scratch

INDUSTRY EXPERIENCE

Independent Contractor (Remote) Nov 2017 – Jun 2018
Yelp, Inc *San Francisco, CA*

- ◇ One of five engineers on the core iOS team supporting an eco-system of 30+ iOS developers

Software Engineer May 2015 – Mar 2016
Petroglyph Games, Inc *Las Vegas, NV*

Grey Goo & Mobile Titles

- ◇ Helped implement matchmaking backend for Grey Goo using Java, Tomcat, and PostgreSQL
- ◇ Converted C# .NET server code to run on Linux with Apache, Docker, Mono, and PostgreSQL
- ◇ Implemented gameplay, backend, and UI on two mobile games using the Unity game engine
- ◇ Helped refactor code from a gameplay prototype to be production ready

Software Engineer (Remote) Jan 2015 – Apr 2015
Yelp, Inc – Ad Delivery Division *Las Vegas, NV*

- ◇ Made the Ad Delivery system more robust through added testing and fault tolerance

Engineering Manager*Yelp, Inc – Mobile Division*

Oct 2013 – Dec 2014

San Francisco, CA

- ◇ Managed team through engineering challenges, e.g. transitioning Objective-C code base to ARC
- ◇ Guided the team as it more than doubled in size from six full-time engineers to thirteen
- ◇ Provided mentorship for the team and interns
- ◇ Helped coordinate work with the Hamburg, Germany office
- ◇ Made staffing decisions and administered performance improvement plans as needed

Software Engineer (Remote/On-site)*Yelp, Inc – Mobile Division*

Jan 2013 – Oct 2013

San Francisco, CA

- ◇ Implemented an updated Nearby Page for the iOS app
- ◇ Wrote both client-side Objective-C code and server-side Python code

Lead Programmer

Aug 2012 – Dec 2012

Lead Platform Programmer

Aug 2010 – Aug 2012

AI Programmer

Jun 2008 – Aug 2010

Programmer

Apr 2007 – Jun 2008

*Petroglyph Games, Inc**Las Vegas, NV*End of Nations (PC)May 2008 – Dec 2012

- ◇ Managed a team of ~ 25 programmers working on a first of its kind massively multiplayer online real time strategy game supporting up to 10k concurrent players on a single server cluster, with over 50 players on a single map (<https://www.youtube.com/watch?v=2JRkogAL3Uo>)
- ◇ Scheduled milestone tasks and communicated feature delivery timeline with other departments
- ◇ Guided architecture decisions in many areas including concurrency, server authority, gameplay systems
- ◇ Wrote and maintained many core systems including AI movement and targeting
- ◇ Worked within a client/server framework with a SQL database backend
- ◇ Helped optimize performance of game servers based on profiling
- ◇ Performed code reviews and mentored junior programmers

Universe at War: Earth Assault (PC/Xbox)Apr 2007 – Apr 2008

- ◇ Worked on a cross platform engine performing PC and Xbox 360 tasks
- ◇ Worked on multiplayer matchmaking code and lobbies
- ◇ Worked with artists to implement GUI scenes using a Lua script based GUI system
- ◇ Ensured Games for Windows LIVE and Xbox 360 TCR compliance
- ◇ Created the installer for the PC SKU and created the Demo for the Xbox 360
- ◇ Implemented bug fixes in the engine and game
- ◇ Became proficient debugging PowerPC assembly code

Engine/Tools Programmer (Intern)

Jul 2006 – Sept 2006

*High Voltage Software, Inc – Mobile Division**Schaumburg, IL*Ghost Recon: Advance Warfighter 2 (PSP)

- ◇ Worked on a cross platform engine doing PC, PSP, and Xbox tasks
- ◇ Integrated a Flash UI middleware product on PC, PSP, and Xbox versions of the engine
- ◇ Worked with UI team to ensure UIs fit within memory and needed features were properly supported
- ◇ Worked with artists on rendering fixes for the PSP
- ◇ Implemented functionality to conform with existing PS2 rendering code