NADER AKOURY

nsa@cs.umass.edu ⬦ https://cs.umass.edu/~nsa

EDUCATION

University of Massachusetts Amherst 2018 – 2024
Ph.D. in Computer Science *Amherst, MA*

University of Massachusetts Amherst 2018 – 2022
M.S. in Computer Science *Amherst, MA*

Guildhall at Southern Methodist University 2005 – 2007
Graduate Certificate of Interactive Technology in Digital Game Development *Plano, TX*
Thesis: Computer Assisted Storytelling in Video Games

Purdue University 2000 – 2004
B.S. in Computer Science and Mathematics *West Lafayette, IN*
Minor: Psychology

RESEARCH EXPERIENCE

Graduate Research Assistant Sept 2018 – May 2024
University of Massachusetts Amherst *Amherst, MA*

⬦ Research fundamental advances in NLP and creative use of language.
⬦ Advisor: Mohit Iyyer

Applied Scientist Intern May 2021 – Aug 2021
Amazon, Inc *Sunnyvale, CA (Remote)*

⬦ Develop new metrics for automatic evaluation of story generation.
⬦ Principal Investigator: Anjali Narayan-Chen

Remote Research Assistant Jun 2017 – May 2018
Auburn University *Auburn, AL (Remote)*

⬦ 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
◇ COLM	2023

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 8 undergrads conducting NLP research for the first time

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

◇ Guided 2 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 Oct 2013 – Dec 2014
Yelp, Inc – Mobile Division *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) Jan 2013 – Oct 2013
Yelp, Inc – Mobile Division *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 $\sim$ 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

Last Updated: Thursday 25th April, 2024