

# Efraim Dahl

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## EDUCATION

### University of Utrecht

*Masters of Science in Artificial Intelligence*

Relevant Coursework: Intelligent Agents, Research Methods in AI, Sound and Music Technology, Pattern Recognition and Deep Learning.

Utrecht, Netherlands  
Sep 2023 - Exp. June 2025

### University of Chicago

*Bachelor of Science with majors in Computer-Science and Music* (GPA: 3.87/4)

Honors: Magna Cum Laude, Deans List 2018-22, Odyssey and CMG Choral Scholarship 2018-2022

Relevant Coursework: Data Structures, Algorithms, Discrete Math, Computer Systems, Calculus, Complexity Theory, Computer Architecture, Human-Computer Interaction, Computer Security, Usable Security, Functional Programming, Scientific Writing

Chicago, IL  
Sep 2018 - June 2022

Study abroad at the West African Research Center

Dakar, Senegal | January 2022 - March 2022

Graduate coursework (Sound+Computation), Hasso Plattner Institute

Potsdam, Germany | November 2020 - September 2021

## EXPERIENCE

### Cusdom Agency

*Full-Stack Web Developer (Contract)*

- Transitioned entire react-codebase from Firebase to MongoDB and Realm to scale application for more than 15000 users
- Optimized app to reduce database load by a factor of 10
- Developed and secured new authentication, payment, and administration workflows with cloud functions.

Utrecht, Netherlands  
July 2023 - Present

### Brean Strategic Advisors

*Software Developer (Contract)*

- Built a data-analysis tool to help evaluate the financial health of 5000 banks in the US
- Designed, sourced, and populated a Database with over 30 tables and more than 100 million rows
- Used C# (.Net), Python, SQL, and Tableau to prepare, transfer, load, visualize and analyze the data

New York City, NY  
September 2022 - April 2023

### University of Chicago, Department of Computer Science

*Research Assistant, Human-Robot Interaction Lab*

- Developed a machine learning pipeline to predict the inclusion of members in a group conversation in real-time
- Built a remote study interface in Unity to conduct research on how robots could facilitate conversation
- Programmed Panda and Nao robots with Python, C++, and ROS, data-analysis using R, Python, OpenCV, Keras, and TensorFlow

Chicago, IL  
November 2020 - June 2022

### Student Staff, Media-Arts-Data-Design Center

- Maintenance/repair of digital fabrication equipment, design and execution of fabrication projects
- Mentoring fellow students and university staff using 3D-printers/scanners, laser-cutters, virtual-reality, soldering and various other equipment

Feb 2019 - June 2022

## LEADERSHIP AND PROJECTS

### Freelance Software Developer

- Cleveland Independents: (09/2022-Present), Multiple E-Commerce Sites, for Ohio Restaurant Associations with WordPress
- Hothouse: (06/2022-Present), E-Commerce/Ticketing and Blogging site, for Chicago Music Nonprofit built with Webflow
- Pkazo: (01/2022-08/2022), Marketplace and social app for artists with React (NEXT.js) and Firebase
- Byto: (06/2020-06/2022), Web-App for gig-based hiring with Vue (NUXT.js) and Firebase

June 2020 - Present

### Junior Game Developer @ Weston Game Lab

Designed and Implemented an environmental survival Game in Unity(C#), controlled with a custom mobile application connected with web sockets

Chicago, IL 2020

### Research Associate @ Paul Douglas Institute

Web-scraped data from major Chicago newspapers and social media, applied natural language processing to analyze neighborhood perception in Chicago in relation to crime and city investment

Chicago, IL 2019

## SKILLS AND INTERESTS

- **Languages:** Fluent in German and English, conversational in French, basic Spanish,
- **Programming:** Python, C# (.Net, Unity), JavaScript, SQL, HTML, CSS, Bash, PHP, C, Elm, R, C++, Supercollider
- **Technical:** Git, Vue, React, Firebase, MongoDB, AWS (EC2 and DynamoDB), Realm, experience with Linux and Windows systems, Unity 3D, Data Analysis with Sklearn, Tableau, Pandas and R. Machine Learning with Keras and Tensorflow, Arduino
- **Other Interests:** Piano Improvisation, Music Production, Biking, Climbing.