

Manan Talwar

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Education

University of Massachusetts Amherst

January 2023 - Present

Master of Science in Computer Science (concentration in Data Science)

Amherst, MA

University of Massachusetts Amherst

Aug. 2020 – Dec. 2022

Bachelor of Science in Computer Science and Mathematics (GPA: 3.92/4.00)

Amherst, MA

Relevant Experience

Tech Lead

January 2023 – Present

Learning Resource Center, UMass Amherst

Amherst, MA

- Led the development of an operational software for handling scheduling, shifts and payroll management serving 300+ users using Django and deployed it using AWS and Docker.
- Served as the webmaster for the organization, leading website and database development using Jekyll, PHP and MySQL.
- Helped with the management, supervision, training, and hiring of technology student staff.

Data Science for Common Good Fellow & NLP Engineer

June 2022 – August 2022

Center for Data Science

Amherst, MA

- Developed two efficient scrapers to aggregate app reviews from Google Play Store and Apple App Store
- Developed a SpaCy classification pipeline based on the RoBERTa transformer neural network model to run on AWS.
- Developed a PostgreSQL database to store app reviews as well as model characteristics.

Software Engineer & Business Developer

Sep 2021 – December 2022

BUILD UMass

Amherst, MA

- Conceptualized a business model and tech stack for Funnl, an early stage CRM startup.
- Migrated the user interface of a Funnl's product from Django to ReactJS.
- Served as the Lead and the Scrum Master for AuCoDe projects, managing a team of 6 software developers and 2 business developers across 3 NLP/ML/AI projects.

Supplemental Instructor

Aug 2021 – December 2022

College of Information & Computer Sciences, UMass Amherst

Amherst, MA

- Led two 75 minute review sessions every week to reinforce content totalling 1600 unique visits across 3 semesters.
- Created learning resources for CS187: Programming with Data Structures and CS250: Theory of Computation.

Selected Works

Lightning: Integrated GUI and REST API | *NodeJS, MongoDB & React*

September 2022 - December 2022

- Developed an MVP REST API and a GUI that summarizes time series data in a visually appealing way for ISO New England under an agile based scrum framework.

AppDanger: Aggregation of harmful applications | *SpaCy, PostgreSQL & AWS*

June 2022 - August 2022

- Created a RoBERTa classification pipeline to help parents protect their children from technology-driven exploitation and deployed it in an EC2 bucket on AWS.

Empathize: A chatbot for mental health support | *Python*

November 2021 - January 2022

- Developed an AI chatbot to provide mental health support using a deep neural network learning model for training and predicting and NLP tools for data preprocessing and evaluation.

Technical Skills

Languages: Python, Java, C/C++, JavaScript/TypeScript, SQL, Ruby, Swift, MATLAB

Frameworks: React, Rails, Flask, Django, PyTorch, Keras, TensorFlow, Bootstrap, SQL, Git, LaTeX, JUnit, NodeJS

Technologies: Linux, AWS, PostgreSQL, MongoDB, Google Cloud, GitHub, Figma, Office Suite, Adobe Suite, GSuite

Honors

Dean's List Award: Fall 2020, Spring 2021, Fall 2021, Spring 2022, Fall 2022

Chancellor's Award: Scholarship worth \$16000 per year to fund Bachelor's degree at UMass.

Dr. Howard Smith Summer Research Award 2022: \$2500 in recognition of exceptional research.

Manning CICS Bay State Fellowship: Full sponsorship for Master's degree at UMass CICS, starting Spring 2023.

Extracurricular Experiences

UMass ACM (Executive Member & Design Secretary), HackUMass IX (Organizer and Tech Lead),

Innovation and Entrepreneurship Scholar (Isenberg School of Management), BUILD UMass (Tech Lead & Executive Member).