Gavin Shrestha

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Education

University of Michigan - Ann Arbor, MI — 2016-2020

GPA: 3.69/4.00

Major: Biopsychology Cognition and Neuroscience, December 2020

Minor: Computer Science

Relevant Coursework:

Fall 2020: Web Systems (EECS 485)

Winter 2020: Data Structures and Algorithms (EECS 281)

Fall 2019: Programming and Intro Data Structures (EECS 280)

Winter 2019: Discrete Mathematics (EECS 203)

Fall 2018: Elementary Programming Concepts (EECS 183)

Academic Projects

Instagram Clone (EECS 485)

- Created Instagram-like application with React frontend with a Flask REST API and SQLite Database
- Streamlined program installation and testing using bash scripting
- Deployed website on an AWS instance using Nginx to listen for HTTP requests and proxy them to a Gunicorn server running my app

MapReduce Server (EECS 485)

- Used Python Threading Library to create a multi-process, multi-threaded server using the Python Threading Library that executes user-submitted MapReduce jobs
- Used Python socket and JSON libraries to facilitate TCP/IP connection between Main and Worker processes
- Used Python pathlib library to create the necessary output directories specified by user input

Wikipedia Search Engine (EECS 485)

- Created an Inverted Index of a large sample of Wikipedia documents using Hadoop MapReduce
- Created a web app for the search engine using HTML/Jinja2 for frontend and Flask/SQLite for backend
- Implemented user-driven scoring to return relevant search results by taking advantage of Google's PageRank algorithm

Personal Projects

Personal Website (shresgav.netlify.app)

- Deployed a website which currently hosts two different applications: a blog and a Todo List
- Hosted React Frontend on Netlify and Django + Postgresql Backend on Heroku