

Syed Ali Hasan

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EDUCATION

The University of Texas at Austin
Bachelor of Science in Civil Engineering

May 2019
GPA: 3.72

SKILLS

- Languages – Python, JavaScript, C, HTML, CSS, MATLAB
- Tools – AWS (Elastic Beanstalk, EC2, S3, IAM, Budgets), Git, Bash, Postman
- Frameworks and databases – Django, Flask, ReactJS, NodeJS, Express, Bootstrap, MySQL, MongoDB

WORK EXPERIENCE

Structural Engineer, L.A. Fuess Partners (06/19 – 04/22):

Structural engineering firm specializing in commercial, residential, institutional, and industrial buildings.

- Contributed to the development of a web application used by 50 users daily to replace an essential in-house concrete design application created in the late 90s.
- Created the back-end using the Python framework, Django, and its libraries NumPy and Pandas. Also created a Django Rest Framework API to transfer data to and from the ReactJS front-end.
- Contributed to the front-end by developing some ReactJS components and styling them using CSS.
- Created several spreadsheets to expedite vibration analysis, joist reinforcing analysis, etc.
- Lead structural engineer on a few \$10M-\$60M projects, overseeing both the design and construction phases.

PROJECTS

Blogging Blobs | <https://bloggingblobs.com/>

- Full-stack responsive blog site created using Python's Django framework for the back-end and some Bootstrap for the front-end.
- Users can view everyone's posts but can only create, update, or delete them if they are signed into their profile. Posts can also be filtered by category.
- The app uses CKEditor to provide a rich text field for easy creation/editing of blog posts, and it uses python's Pillow library for processing images and profile pictures.
- Deployed using AWS (Elastic Beanstalk, EC2, S3).

Pixel Sketch | <https://ali-hasan97.github.io/pixel-sketch/>

- Front-end sketching app created using HTML, CSS, and Javascript. It presents a grid that can be marked in any color or in rainbow mode. Rainbow mode semi-randomly picks the most vibrant colors using a function to only generate HSL colors with 100% saturation and 50% lightness.
- Each cell in the grid can be lightened, darkened, erased, or resized as defined by JavaScript functions.

Portfolio Site | <https://syedalihasan.com/>

- Responsive portfolio site created using ReactJS to display projects.
- Uses emailJS for sending emails containing data from a 'Contact Us' form.

Relevant Coursework

- Discrete Math for Computer Science (CS 311)
 - None, but I have taken several courses that give me a solid foundation in math:
 - Differential equations with linear algebra (UT Austin) – M427J – A
 - Sequences, Series, and Multivariable Calculus (UT Austin) - M408D – B-
 - Differential and Integral Calculus (UT Austin) – M408C – A
- Introduction to Programming (CS 312)
 - Intro to Computer Methods (UT Austin) - CE 311K – A
 - Intro to Computer Science – Harvard CS50 - edx
- Data Structures (CS 314)
 - Data Structures Fundamentals – UC San Diego – edx
- Algorithms and Complexity (CS 331)
 - Advanced Algorithms and Complexity – UC San Diego – edx
- Computer Organization and Architecture (CS 429)
 - None
- Principles of Computer Systems (CS 439)
 - Haven't taken any courses specifically for learning the principles of computer systems. Still, my full-stack web applications experience, Harvard CS50, and The Odin Project provided exposure to some of the concepts covered by this course (primarily networks and file system fundamentals).
- Other
 - The Odin Project – Foundations and Full-Stack Javascript paths
 - Open-source curriculum that covers HTML, CSS, JavaScript, networks, MERN stack, and REST APIs
 - Full Stack Open – the University of Helsinki – Currently in progress
 - University course that covers the MERN stack along with GraphQL and TypeScript.