Liam Bessell

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EDUCATION

TEXAS A&M UNIVERSITY

B.S. in Computer Science
Fall 2017 - May 2021 (Expected)
College Station, TX
GPA: 3.9 / 4.0
Engineering Honors

COURSEWORK

Computer Graphics
Artificial Intelligence
Analysis of Algorithms
Software Engineering Studio
Introduction to Computer Systems
Data Structures and Algorithms
Programming Languages
Computer Organization

SKILLS

PROGRAMMING LANGUAGES

Experienced:
C/C++ • Python

Familiar:
Java • C# • Bash • GLSL
JavaScript • HTML • CSS
Haskell • Matlab • Assembly

TECHNOLOGIES

Experienced:
Git • Visual Studio

Familiar:
OpenGL • PostgreSQL • AS3
Jupyter • React

AWARDS

USAA IAP Scholarship Recepient: Fall 2019 - Spring 2020
Dean's List: Spring 2019
Eagle Scout: Fall 2016

EXPERIENCE

AMAZON

Software Engineering Intern
June 2020 – August 2020 | Seattle, WA (Remote)

JOHNS HOPKINS UNIVERSITY APPLIED PHYSICS LABORATORY

Software Engineering Intern
May 2019 – August 2019 | Laurel, MD

- Implemented an automated tool in Python that is actively used on two development teams with over a dozen programmers. The tool runs changed code committed in Git through a static analyzer and flags security vulnerabilities and errors.
- Created a mobile web application using JavaScript for the Front-End and Python for the Back-End that displays live information about planes being picked up by an antenna and shows their position on a map.
- Collaborated with a team to process plane data and utilize data science algorithms in Python to classify aircraft.

RESEARCH

URBAN RESILIENCE LAB AT TEXAS A&M UNIVERSITY

Civic Analytic Fellow
March 2020 - May 2020 | College Station, TX (Remote)

- Implemented an algorithm in C++ to find hotspots in a mobility network based on visits between nodes. Multi-threaded the program in order to compute hotspots in large networks in a reasonable time.
- Worked in a cross-disciplinary team of data scientists, software engineers, and civil engineers to analyze COVID-19 data and disseminate our results to policy makers.

PROJECTS

Tiled Deferred Renderer

- Built a real-time tiled deferred renderer in C++ and OpenGL with a bloom post-processing effect.

Ray Tracer

- Created an offline ray tracer from scratch in C++.
- The program can render reflections, shadows, multiple lights, and complicated models built with triangles.