LUCAS DU

lucaszdu@gmail.com

EDUCATION

THE UNIVERSITY OF CHICAGO   Chicago, IL

Bachelor of Science in Computer Science   June 2021

RELEVANT COURSEWORK

Parallel Computing   Introduction to Database Systems
Introduction to Computer Security   Programming Languages
Computer Architecture   Machine Learning (Coursera)

SKILLS

Programming languages: C, Python, Rust, Java   **Tools:** Git, Subversion, SQLite, Scipy/Numpy

EXPERIENCE

University of Washington, Bothell, School of Business   Seattle, WA

Research Assistant   August 2019 - September 2020

- Developed Python web scraper to track keywords and corresponding values in over 200,000 corporate financial reports as part of Valerie Li's research on executive payments
- Utilized SQLite to store and access scraped data

PROJECTS

CrustyDB   January 2021 - March 2021

- Developed DBMS in Rust, with a heap-based storage manager and a primitive buffer pool

Handwriting Detection   July 2020 - August 2020

- Trained neural network on MNIST handwriting database as part of Coursera Machine Learning course
- Implemented multi-class classification to perform automated handwritten digit detection

ARM Architecture Simulator   October 2019 - December 2020

- Created a simulation of the ARM instruction set architecture in C, implementing machine instructions, five-stage pipelining, and branch prediction—quarter-long project for Computer Architecture

Memory Allocation Simulator   June 2019

- Built a dynamic storage allocator in C, optimizing efficiency and memory fragmentation—final project for Introduction to Computer Systems

LEADERSHIP & ACTIVITIES

Exploring Race, University of Chicago—*Social Media Outreach, Reporter*   January 2020 - October 2020

- Planned and distributed social media content for magazine focused on campus-centered racial issues
- Created multimedia (flyers, images, etc.) to engage campus readership

The Chicago Maroon, University of Chicago—*Columnist*   October 2017 - October 2020

- Reviewed albums and concerts for the Arts section
- Wrote up to three columns per quarter for the Viewpoints section on diverse socio-political issues