IS

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EDUCATION

CARNEGIE MELLON UNIVERSITY
B.S. IN COMPUTER SCIENCE WITH CONCENTRATION IN MACHINE LEARNING
Pittsburgh, PA • Expected May 2022 • GPA: 4.0/4.0
Dean's List Fall 2018, Spring 2019, Fall 2019

EXPERIENCE

INTERN • IBM RESEARCH • MAY 2019 – AUGUST 2019

- Built a Kubernetes operator in Go for queueing, dispatching and resource management of Apache Spark jobs in a multi-cluster environment.
- Designed a "fail-fast" operator to allow cluster administrators to detect and handle custom job failure conditions.
- Collected and analyzed performance data for the Google Spark-on-k8s operator.

RESEARCH ASSISSTANT • CMU CS DEPARTMENT • AUGUST 2019 – PRESENT

- Built a lexer, parser and type checker with type inference capabilities for a simple functional programming language under Prof. Jan Hoffmann.
- Assisted in writing the lexer, parser and bidirectional type checker for Nomos, a language for programming smart contracts for the blockchain.
- Collaborated to design a programming language for static analysis of the gas cost (cost of execution) of smart contracts.

EXCEL LEADER • CMU ACADEMIC DEVELOPMENT • AUGUST 2019 – PRESENT

- Lead weekly sessions for students seeking additional support for 21-127 (Concepts of Math) and 21-259 (Calculus in Three Dimensions).
- Develop and implement custom learning techniques that target gaps in student knowledge and facilitate collaborative learning.

SKILLS

- Languages:
  - Java
  - C
  - Python
  - Go
  - OCaml/SML
  - Bash
- Containers:
  - Kubernetes
  - Docker
- Operating Systems:
  - Mac
  - Linux

COURSEWORK

- Probability and Computing
- Foundations of Programming Languages
- Parallel and Sequential Data Structures and Algorithms
- Introduction to Computer Systems
- Great Ideas in Theoretical CS

PROJECTS

STUDY BUDDY • TARTANHACKS • FEBRUARY 2019

- Developed a SaaS application that scanned handwritten or typed notes, converted them into text and highlighted important phrases to allow readers to quickly extract key information from the document.
- Utilized Bootstrap to automatically create and display flashcards of key concepts from the text.
- Built the application in Python and deployed it on Microsoft Azure.

ROBO-ORCHESTRA • CMU ROBOTICS CLUB • AUGUST 2018 – PRESENT

- Designed and evaluated several mechanisms to play chords on a robotic ukulele as part of a larger band of robotic instruments such as a xylophone and a snare drum.
- Devised a computer vision algorithm to make the orchestra responsive to human conducting.