



Byron Benjamin Harris

434.996.4435 | byronbenharris@gmail.com | www.byronbenharris.com |  byronbenharris |  byronbenharris

EDUCATION

Rice University

Master of Computer Science, Specializing in Software Engineering

Houston, TX
August 2021 - December 2022

Rice University

Bachelors of Arts in Computer Science, Minor in Physics -- GPA: 3.22

Houston, TX
August 2017 - May 2021

Relevant Coursework: Algorithmic Design, Computer Systems, Operating Systems, Compiler Construction, SWE Methodologies, Object-Oriented Programming, Functional Programming, Parallel Programming, Database Systems, Computer Security, Tools and Models for Data Science, Deep Learning, Artificial Intelligence, Linear Algebra

Teaching Experience: Compiler Construction for Graduate Students, TA (Spring 2021); Compiler Construction for Undergraduate Students, TA (Fall 2020 & 2021); Fundamentals of Computer Engineering, TA (Spring 2018); Philosophy of Bojack Horseman: An Introduction to Existential Philosophy, Teacher (Fall 2020)

EXPERIENCE

Facebook Inc.

Enterprise Engineering Intern, Invoicing Tools

Austin, TX
June 2020 – August 2020

- Created new quick-select option for commonly used attachments in the invoice resolution tool's email feature
- Synced files changes from Google Drive shared folder to internal database via recurring Hack script
- Displayed categorized options via dropdown and attached file to email upon selection in React frontend
- 1 of 3 interns selected to present work at quarterly enterprise engineering meeting attended by 200+ employees

Babylon Micro-Farms (startup)

Software Engineering Intern

Charlottesville, VA
July 2019 – August 2019

- Implemented 150+ tests and on a Django Rest Framework API (raising code coverage from 3% to 70%)
- Researched data generation methods for Django testing; built robust, interconnected factories with the Factory Boy package to instantiate model instances; and developed BASH scripts for virtual environment management

PROJECTS

EZ PowerPoint

September 2021

- Implemented web app to identify key phrases in text reports and create a ready to use PowerPoint presentation
- Individually designed HTML/CSS/JS frontend with drag and drop file upload that transmitted report file to Flask backend and initiated download of presentation file upon completion of natural language processing algorithms
- Placed top 5 out of more than 80 entries into HackRice 11 (Rice's annual hackathon) in 4 person team

Deep RL Rocket Trajectory Optimization

April 2021

- Explored the use of Deep Q-Networks and the DDPG Algorithm to optimally solve 2D Transfer Orbits
- Created custom OpenAI gym environment to simulate rocket flight in randomized multi-planet systems
- Implemented 4th Order Runge-Kutta methodology from scratch to model motion

LEADERSHIP

Student Government

Duncan College Chief Justice

Rice University
February 2019 – February 2020

- Coordinated with Rice Administration and the student body to ensure that the Code of Conduct is upheld
- Presided over the Duncan Court (8 Associate Justices) to determine just punishments for student violations
- Sole student elected for the position in Duncan College and 1 of 11 chosen campus-wide

SKILLS

Languages: Python, Java, C, JavaScript, PHP/Hack, HTML, CSS

Technologies: Git, AWS, Django, Node.js, Express, React, Next.js, SQL, MongoDB