Austin Odell

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Education

B.S.E. Double Major in Electrical and Computer Engineering and Computer Science, Minor in Economics   GPA: 3.6
Duke University   *Expected May 2021*

Completed Coursework: Advanced Software Design and Implementation, *Data Structures and Algorithms, Computer Architecture, Fundamentals of Data Analysis and Decision Science, Digital Systems,* and *Design and Analysis of Algorithms*

Technical Skills

Experience: Java, Python, AWS, MIPS, Verilog, MATLAB, Eclipse, IntelliJ, Git
Exposure: Scrum Teams, Pair Programming, Agile, SOLID, C, HTML, CSS, Arduino, UNIX-based CLI, Linear Programming(GLPK)

Software Engineering Projects

Serving Up FHIR – Python and AWS   Presentation   **Summer 2020**
- Deployed an endpoint that is used to serve-up internal data as HL7 FHIR resources
- Developed a data shaper to convert from internal data stores to FHIR framework resources
- Used a serverless architecture built with AWS Lambda, API Gateway, and S3

Simplified Logo Interpreter – Java   GitHub   **March 2020**
- Front-end engineer of a development environment for a simplified version of the Logo language
- Led development of UI design and user preferences feature

Cellular Automata – Java   GitHub   **February 2020**
- Back-end engineer for a cellular automata simulator (ex. Wa-Tor, Conway's Game of Life, and Segregation)
- Collaborated with a data and front-end engineer to integrate the three parts using Git

Facial Recognition – MATLAB   Presentation   **December 2019**
- Reduced dataset dimensionality more than 100-fold via principal component analysis
- Analyzed supervised learning methods of KNN, Logistic Regression, and Linear Discriminant Analysis
- Achieved over 90% accuracy classifying facial records using a k-nearest-neighbors algorithm

Carolina Data Challenge – R and Python   Presentation   **October 2019**
- Led a data science hackathon team in analyzing city crime data
- Mapped crime hotspots for 8 age groups of victims, plus showed changes over past 10 years
- Presented the visualizations to industry representatives from CapTech, SAS, Barings, Ernst & Young, and Fidelity

Work Experience

Software Engineering Intern – AWS FHIR team – Apervita   **May-August 2020**
- Led an agile team of 3 undergraduate interns in multiple early-stage projects

Undergraduate Teaching Assistant –*Computer Architecture* – Duke University   **Spring and Summer 2020**
- Lead recitation section, hold office hours, answer questions on forum, and grade assignments and exams

Biomedical Engineering Technician –– *Engineering World Health Summer Institute* –– Tanzania   **June-August 2019**
- Serviced over twenty pieces of medical equipment within a month in a low-resource setting
- Improved communication across language barriers by completing cultural and language training

Lifeguard – Duke University Aquatics   **October 2017-April 2019**
Lifeguard and Swim Instructor – MetroWest YMCA summer camp – Hopkinton, MA   **Summers 2015, 2016, 2017**

Leadership Experience

Duke Men's Rowing – Safety Officer and Team Member   **February 2018-Present**
- Implement culture shift which doubled team retention rates
- Member of executive board which creates policy for competitions, practices, coaching, and culture
- Compete in an extremely teamwork-oriented environment

Eagle Scout – Troop 4 – Hopkinton MA   **October 2016**
- Planned, organized, and led a service project to mark public trails at the local YMCA: totaled over 100 volunteer hours
- Increased safety for campers, counselors, and the hiking public on these trails
- Overhauled troop gear storage as quartermaster; helped a dozen scouts with rank advancement as an instructor
- Arranged and attended backpacking trips to Yosemite, Yellowstone, and Grand Canyon National Parks

Languages

Spanish: Advanced written and oral proficiency
Swahili: Basic communication skills