Benjamin **Lu**

✉ benlu@cs.unc.edu 🌐 benlu910.github.io 📞 910-398-0087 in benlu910 ⬡ benlu910

Education

University of North Carolina at Chapel Hill
B.S. Statistics and Computer Science 2020
GPA · 3.6/4.0

Skills

Programming · Java, C, Python, GO
Analytics · SAS, JMP, IPython, R, Excel, SQL
Web Tools · HTML/CSS/JS, Flask, Bootstrap, jQuery, React

Employment

UNC Department of Computer Science · COMP 410 Undergraduate TA — Chapel Hill, NC · Aug. 2018 - Present
• Working as a teaching assistant for Comp 410: Data Structures and Analysis.
• Facilitating office hours for a class of 375 students providing guidance in Java programming.
• Aiding students in data structures such as Linked List, BST, BHEAP, and Dijkstra's Algorithm.

SAS Institute · Data Engineering Intern | Research Division — Research Triangle, NC · Summer 2018
• Presented multiple analyses on SAS Viya defects to recommend product features to VP of R&D.
• Worked with HTML design team to improve SAS Viya usability by analyzing customer survey data.
• Created data pipelines to aggregate over 1 million defects using SAS code and SAS/Share servers.
• Built dashboards using JMP to allow testing divisions to analyze 9 years of their product defects.

WildKiz.com · Front-End Developer Intern — Philadelphia, PA · Summer 2017
• Translated UX wireframes into responsive, interactive features, using HTML/CSS/JavaScript.
• Designed and created customer landing pages to increase click-through rates by ~25%.

UNC Energy Management · Database Manager & Analyst — Chapel Hill, NC · Nov. 2016 - May 2018
• Managed database of utilities for 200+ properties throughout the entire UNC campus.
• Used Java, Apache POI, and Excel to improve storage time of utility data from days to seconds.
• Modeled energy usage in IPython to recommend renovations leading to ~$3,000 in yearly savings.

Projects

Sentiment Analysis Tool — Dec. 2017 - Jan. 2018
• Created a tool to analyze a given text's sentiment using TextBlob and a Naive Bayes Classifier in Python.
• Setup back-end with Flask and Ajax to interact with the web server and used Git to maintain version control.
• Developed front-end with HTML/CSS/JavaScript to improve accessibility.

UNCW IDEA Lab — Summer 2015
• Cleaned test data from 1000+ military veterans from Camp Lejeune in Excel.
• Tested correlation between # of blasts and PTSD using the Trauma Symptom Inventory using R.
• Developed a reduced version of the TSI without a significant loss of info using the Item Response Theory.

Activities

Carolina Analytics & Data Science (CADS) · Technical Chair & Project Leader — Sept. 2017 - Present
• 2017: Created Metric Matters project; led bi-weekly workshops teaching Python using UNC utility data.
• 2018: Director of all projects conducted by CADS; organizer of CADS yearly data case competition.
• Organizing committee of annual UNC data hackathon (CarolinaDataChallenge.com).

Girls Who Code · Instructor — Jan. 2018 - Present
• Working to close the gender gap in technology and change the image of programming.
• Teaching 30 grade school students Python and Web Development weekly to empower them in STEM.

Hack NC · Marketing & Dev Team — May 2017 - Oct. 2017
• Planned logistics and marketing strategy for the largest hackathon (600+ participants) in NC.
• Managed social media outlets and contributed to HackNC.com to increase attendance by 15%.

Coursework & Awards

Computer Science · OOP (401) , Data Structures (410) , Computer Organization (411), Models of Languages (455), Databases (521)
Statistics · Design of Experiements & ANOVA (UNCW), Introduction to Probability (435) , Statistical Methods (455), Optimization (415)
Math · Combinatorics (UNCW), Multivariable Calculus (233) , Discrete (381), Differential Equations (383), Linear Algebra (547)
Awards · Dean's List every semester, National Merit Scholar, Eagle Scout