William **Boyles**

✉ williamboyles22900@gmail.com | ⌂ wmboyles.net | wmboyles | in wmboyles

Education

North Carolina State University   *Raleigh, NC*
B.S. COMPUTER SCIENCE & MATHEMATICS   *2018 - 2022*
- Valedictorian, Summa Cum Laude, Phi Beta Kappa, Dean's List (8 semesters)
- University Honors Program, Computer Science Honors Program

Experience

Microsoft   *Redmond, WA*
SOFTWARE ENGINEER   *August 2022 -*
- Created near-real-time Spark data processing pipelines that handle terabytes of pricing data per day
- Automated common interactions with production, reducing mitigation times and risk of unintended changes
- Automated deployment of cloud infrastructure to airgapped environments, minimizing the need for manual steps

Microsoft   *Redmond, WA*
SOFTWARE ENGINEERING INTERN   *Summer 2021*

IBM   *Durham, NC*
CLOUD & COGNITIVE SOFTWARE INTERN   *Summer 2020*

Forsyth Country Day School   *Lewisville, NC*
ENGINEERING CAMP COUNSELOR   *Summers 2016 - 2019*

Pool Professionals   *Winston Salem, NC*
LIFEGUARD   *Summers 2017 - 2019*

Skills

Languages: Python | Scala | C# | SQL | Java | JavaScript | LaTeX | HMTL

Technologies: Spark | Azure | Bootstrap | Git

Projects

Lights Out   *Android App*
- Based on 1990's handheld electronic game, but has more features like dynamic board sizes
- Written in Java using Android Studio, released for free on Google Play Store

NCAA Bracket Prediction   *Python Tool*
- Automatically scrapes the latest game data and outputs pre-filled bracket predictions as a LaTeX-compiled PDF
- Python tool that implements PageRank, Elo, Bradley, and other custom ranking algorithms
- Algorithms consistently outperform average prediction tournament entries and my personal predictions

wmboyles.net   *Personal Website*
- Personal domain containing resume, detailed project write-ups, and contact info
- Designed using Bootstrap and Jekyll, increasing mobile usability while minimizing code redundancy

Math Summaries   *Open Source Math Textbooks*
- Summaries of college math courses written in LaTeX and published as PDFs, allowing community contributions
- Committed to the public domain, providing educational information for free

Writing

Most Clicks Problem in *Lights Out*   *Research Article*
- Introduced the Most Clicks Problem, and solves it for two specific instances

Resolution to Sutner's Conjecture   *Research Article*
- Proves 30+ year old conjecture related to the Lights Out Game