William **Boyles**

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Education

North Carolina State University — *Raleigh, NC*

B.S. in Computer Science and 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 Engineering Intern — *Summer 2021*

- Created Azure resources to monitor critical infrastructure for failures, improving response times
- Built monitoring tools in Azure for purchase infrastructure, ensuring government compliance
- Deployed solutions to production and airgapped government clouds

IBM — *Durham, NC*

Cloud & Cognitive Software Intern — *Summer 2020*

- Created Python tool to visualize cloud outages and identify root causes in real-time, driving response improvements
- Developed Python Slack bot to provide actionable, on-demand data to outage responders
- Overhauled data pipeline via a technical redesign, increasing speeds by up to 5900%

Forsyth Country Day School — *Lewisville, NC*

Engineering Camp Counselor — *Summers 2016 - 2019*

Pool Professionals — *Winston Salem, NC*

Lifeguard — *Summers 2017 - 2019*

Projects

Lights Out — *Android Mobile 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 for all Android devices

NCAA Bracket Prediction — *Python Tool*

- Automatically scrapes the latest game data and outputs 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.com — *Personal Website*

- Personal domain containing resume, detailed project write-ups, and contact info
- Overhauled design to use Bootstrap, increasing mobile usability
- Built using Jekyll, minimizing code redundancy

Math Summaries — *Open-Source Math Textbooks*

- Summaries of math courses I took in college, including multivariable calculus and differential equations
- Written in LaTeX and published as PDFs, allowing open source contributions
- Committed to the public domain, allowing users to always access information for free