

# John Bush

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## Education

- 2023–present **Graduate Certificate in Software Design & Development**, *University of Washington*, Bothell, WA.  
Computer science and software engineering content equivalent to core requirements of a BS degree in Computer Science.
- 2021–2022 **Certificate in Ethical Hacking**, *University of Washington; Professional and Continuing Education*, Seattle, WA.  
Eight month course on professional penetration-testing. Included cybersecurity strategies and hands-on practice.
- 2015–2018 **BS Mathematics**, *University of Washington*, Bothell, WA.  
Coursework in pure and applied math, particularly Topology, Algebra, and Linear and Nonlinear optimization and rootfinding.

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## Employment

- 2013–2023 **Puzzle Engineer**, *Puzzle Break*, Seattle, WA.  
Designed and fabricated puzzles for escape rooms and collaborative puzzle games. Manufactured props with sensors and microcontrollers to open locks, reveal clues, and provide players interactive puzzles. Integrated props with off-the-shelf show control systems. Developed backend systems for online game offerings.

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## Skills

- Programming Languages C, C++, Java, C#, Python, JavaScript
- Scientific Computing MATLAB, Mathematica, SciPy, R
- Misc Linux, AWS (Lambda, DynamoDB, EC2), networking, cabling and low voltage digital electronics

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## Academic Activities

- 2017 Participated in NSF-sponsored research project in knot theory supervised by Prof. McLoud, University of Washington.
- 2016 Participated in Mixed Reality research supervised by Prof. Abadi, University of Washington. Implemented a UWP app for Microsoft HoloLens controlling motion of a robot.