

# John Bush

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## Education

2015–2018 **B.S. Mathematics**, *University of Washington*, Bothell, WA.  
Coursework in pure and applied mathematics, particularly Topology, Algebra, and Linear and Nonlinear optimization and rootfinding.

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## Employment

- 2013–present **Puzzle Engineer**, *Puzzle Break*, Seattle, WA.  
Designed and fabricated puzzles for escape rooms and collaborative puzzle games. Manufactured props from wood, plastic, and metal. Developed robust digital controls employing sensors and microcontrollers to open locks, reveal clues, and provide players interactive puzzles. Integrated props with off-the-shelf show control systems.
- 2018 **Grader**, *University of Washington*, Bothell, WA.  
Graded homework for Real Analysis math course. Supervised by Prof. Mann.
- 2017 **Research Intern**, *University of Washington*, Bothell, WA.  
NSF-sponsored REU research program in mosaic knot theory. Results were presented in a poster at 2018 Joint Mathematics Meeting in San Diego. Supervised by Prof. McLoud.
- 2011 – 2014 **Warehouseman**, *Atlas Supply*, Seattle, WA.  
Worked in construction supply warehouse picking orders and shipping and receiving freight. Prepared paperwork for shipping hazardous materials.

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## Skills

Programming Languages C, C++, Java, C#, Python  
Scientific Computing MATLAB, Mathematica, SciPy

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## Academic Activities

- 2018 Participated in Kryptos cryptanalysis challenge. Placed second among individual competitors.
- 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.