

# Using Modern Code to Simulate Brain Development: Interview with Roman Bauer, Research Associate at Newcastle University

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## Using Modern Code to Simulate Brain Development: Interview with Roman Bauer, Research Associate at Newcastle University

Roman Bauer discusses using computer modeling to simulate brain development in his research for finding a cure for neurological disorders, such as epilepsy, schizophrenia, and autism. Sections of his simulation were used as the starting base in the Intel Modern Code Developer Challenge. The grand prize winner optimized the code using modern code programming techniques and Intel® Xeon® processors for an astounding 32,000% improvement in runtime!

## Download Video

[1280X726 \(86.29 MB\) \(http://uds.ak.o.brightcove.com/740838651001/740838651001\\_4644566357001\\_Using-Modern-Code-Interview-Roman-Bauer.mp4\)](http://uds.ak.o.brightcove.com/740838651001/740838651001_4644566357001_Using-Modern-Code-Interview-Roman-Bauer.mp4)

For more complete information about compiler optimizations, see our [Optimization Notice \(/en-us/articles/optimization-notice#opt-en\)](/en-us/articles/optimization-notice#opt-en).

Categories: [Research \(/en-us/articles/type/80676\)](/en-us/articles/type/80676), [Developers \(/en-us/taxonomy/term/17152\)](/en-us/taxonomy/term/17152), [Intel® Parallel Studio XE Cluster Edition \(/en-us/software/products/78045\)](/en-us/software/products/78045), [Code Modernization \(/en-us/taxonomy/term/80685\)](/en-us/taxonomy/term/80685), [Parallel Computing \(/en-us/taxonomy/term/20867\)](/en-us/taxonomy/term/20867).

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