





JONATHAN THOMAS

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OBJECTIVE	Seeking a backend software engineering position with interests in distributed systems, programming languages, compilers and operating systems.	
EDUCATION	University of Michigan <i>B.S.E. Computer Science, B.S. Honors Mathematics, minor in Philosophy</i> <i>Honors: Phi Beta Kappa, summa cum laude</i> <ul style="list-style-type: none">• Coursework: Operating Systems, Computer Networks, Compilers, Machine Learning, Web Systems	Ann Arbor, MI <i>May 2019</i>
EXPERIENCE	Facebook <i>Software Engineering Intern, Kernel Applications</i> <ul style="list-style-type: none">• Designed and implemented C++ service to dynamically create, destroy, list and retrieve status of network block devices used in Facebook's disaggregated flash storage fleet.• Iterated upon existing Python block storage allocation service to support pushing notifications of updates to clients in lieu of clients polling repeatedly for updates.• Wrote tool to override command line options based on customizable host and data center configurations; reduced workflow complexity for quickly testing new application versions.• Removed internal Facebook dependencies in the process of open sourcing the oomd  project. J.P. Morgan Chase Digital <i>Software Engineering Intern, Digital Authentication</i> <ul style="list-style-type: none">• Wrote Java code to unify separate interfaces for Chase account backend services, streamlining testing.• Performed code quality inspection with senior colleagues for Java code with suggestions for refactoring, eliminating duplicated code and applying proper object-oriented design patterns.• Wrote tests for new protocol incorporating OAuth token authorization for 3rd-party aggregators.	Menlo Park, CA <i>Summer 2018</i> New York, NY <i>Summer 2017</i>
RESEARCH	Engineering Honors Capstone  <i>Undergraduate Researcher, Prof. Harsha Madhyastha</i> <ul style="list-style-type: none">• Developed a combination of Node.js and Bash scripts to assist in comparing post load DOM trees of websites across different timespans and replay environments.• Visualized the resulting statistics of the percentage of DOM differences using R. Laboratory of Geometry  <i>Undergraduate Researcher, Prof. Sarah Koch</i> <ul style="list-style-type: none">• Presented a poster detailing aspects of underlying combinatoric properties of the Mandelbrot set.• Wrote Python scripts using SageMath, numpy and matplotlib to visualize associated data and help with symbolic algebra computations.	Ann Arbor, MI <i>Winter 2019</i> Ann Arbor, MI <i>Fall 2017</i>
LEADERSHIP	Engineering Honors Program <i>President, Honors Student Advisory Board</i> <ul style="list-style-type: none">• Organized and led professional and social events in order to strengthen the Honors community.• Planned and managed the advisory board weekly meetings.	Ann Arbor, MI <i>March 2017 - May 2019</i>
ACTIVITIES	Michigan Pops Orchestra, Assistant Concertmaster Engineering Honors GO! New Zealand Volunteer	<i>Sep 2015 - May 2019</i> <i>Apr 2017 - May 2017</i>
SKILLS	Languages: C++, C, Python (main), Java, Javascript (proficient), Rust, Haskell (familiar) Other Technologies: Bash, Thrift, Git, Vim, L ^A T _E X Miscellaneous: Avid music listener, record collector, veteran game night host, occasional backpacker	