**Eric C. Clinch**

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| **EDUCATION** | | | | | | |
| August 2016 – May 2019 | | **Carnegie Mellon University School of Computer Science** | | **3.9/4.0 GPA** |
| August 2014 – May 2016 | | **University of North Texas** | | **4.0/4.0 GPA** |
| **Coursework** | | | | | |
| * AI Representation and Problem Solving, Machine Learning, Great Ideas In Theoretical Computer Science, Probability, Calculus in 3D, Matrices and Linear Transformations | | | | | |
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| **WORK EXPERIENCE** | | | | | | |
| **Software Engineering Intern at BorrowersFirst** | | | May 2017 – August 2017 | | |
| *Software Engineering Intern* | | |  | | |
| * Ported BorrowersFirst’s Kafka libraries to Java, increasing stability and saving the company approximately $15,000 annually from Kafka downtime and servicing. * Built a data analysis and visulation tool for BorrowersFirst’s internal data streams using Java, Kafka, and Neo4j. * Developed BorrowersFirst’s AWS deployment process for Java projects using Docker and Ansible. * Modified an existing tool that edited encrypted configuration files to be compatible with Java and Typescript projects. This decreased the deploy time of these projects by approximately 1 hour per deploy. | | | | | |
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| **Carnegie Mellon University** | | | November 2016 – May 2017 | | |
| *Theorem Proving and Formal Verification Researcher* | | |  | | |
| * Worked with Dr. Avigad at Carnegie Mellon University to conduct research on Automated Theorem Proving, Formal Verification, and the development of Lean, a theorem proving computer language. | | | | | |
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| **Solis Security** | | | May 2016 – April 2017 | | |
| *Security Intern* | | |  | | |
| * Worked with the SIEM software Splunk to perform network data aggregation and data analysis. * Performed risk assessment analysis on the security protocols and configuration of software. | | | | | |
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| **The University of North Texas** | | | May 2015 – 2016 | | |
| *Gas-phase Kinetic Chemistry Researcher* | | |  | | |
| * Researched gas-phase kinetic chemistry in Dr. Paul Marshall’s lab. Used Infrared Spectrometry and data analysis tools to determine the rate of decay of various hydrofluorocarbons. * Published a paper on the results of the research in the Journal of Physical Chemistry. | | | | | |

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| **PROJECTS** | | |
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| 2017 | **LightRiders:** an AI to compete in the Riddles.io Tron competition. The project is written in Java and uses Computational Game Theory, Graph Theory, and the results of a Genetic Algorithm to determine the AI’s strategy. |  | |
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| 2017 | **Space Invaders AI:** Trained a Neural network to play the Space Invaders video game. A supervised learning algorithm was used to initially train the neural net, and then a genetic algorithm was used to improve the network. |  | |
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| 2016 | **Proper Proofer**: a propositional logical theorem writing and proofing tool written in Python. Uses the Monien-Speckenmeyer 3-SAT solver to verify proposition validity, a propositional Tableaux algorithm to find a proof of a propositional statement, and finally Tkinter graphics to display the constructed proof. <https://www.youtube.com/watch?v=2baqzq65ZZs> |  | |

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| **SKILLS** | | |
| **Programming Languages and frameworks**   * Proficient: Java (Spring Boot, Maven), Python; Familiar: C++, C, Node.js, Git |  |
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| **LEADERSHIP & AWARDS** | | |
| * TA for 15-112: Fundamentals of Programming and Computer Science * Current ranked as the #1 US competitor in the Riddles.io LightRiders and Golad AI competition. * Dean’s List every semester at both Carnegie Mellon University and The University of North Texas. * Siemens Competition in Math, Science & Technology semifinalist |  |