

# RUTURAJ KIRAN VAIDYA

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## SKILLS

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Programming Languages:	Python, C++, C, x86 assembly
Tools, operating system and other skills:	intel PIN, ghidra, Linux administration, git, HTML etc.
Current Research and thesis:	Application (binary) security using reverse engineering

## EDUCATION

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<b>University of Kansas</b> (3.48) PHD Computer Science	Lawrence, KS Dec 2023
<b>University of Mumbai</b> (First Class) BE Electronics Engineering	Mumbai, India May 2014

## WORK EXPERIENCE

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<b>University of Kansas</b> <i>Graduate Research Assistant</i>	Lawrence, KS From Jan 2019
<ul style="list-style-type: none"><li>• Thesis - Securing binaries using reverse engineering</li></ul>	
<b>University of Kansas</b> <i>Graduate Teaching Assistant</i>	Lawrence, KS Aug 2018   Dec 2018
<ul style="list-style-type: none"><li>• Teaching Assistant for Compiler Construction class (EECS 665)</li></ul>	
<i>Graduate Teaching Assistant</i>	Jan 2018   May 2018
<ul style="list-style-type: none"><li>• Teaching Assistant for Operating Systems class (EECS 678)</li></ul>	
<b>LTI (Larson and Toubro Infotech)</b> <i>Systems Engineer</i>	Mumbai, India Dec 2014   Mar 2017
<ul style="list-style-type: none"><li>• Install, deploy servers (virtual machines) and maintain their performance</li><li>• Install and test new software, upgrade kernels, manage patch releases as per the client needs</li></ul>	

## PROJECTS

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**Binary security - Spatial security using intel PIN and ghidra** - *c++, python, intel PIN, ghidra, x86 assembly*  
Developed a couple of tools, one using intel pin api in c++, which uses dynamic profiling information and static reverse engineered input from another tool developed using ghidra api in python, to secure binaries against overflow attacks

**Compromising Package manager security** - *Python, javascript, MongoDB, jq, etc.*  
Supporting an ongoing research project that talks about vulnerabilities in package management systems

**Search Engine** - *Python, HTML, CSS*  
Developed a complete Search Engine using Python and a web interface using HTML and CSS

**Quash Shell** - *C*  
Developed a shell program using UNIX system calls including a linked list data structure for pipe-lining, re-directions and background jobs

## PUBLICATIONS

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<b>Security Issues in Language-based Software Ecosystems</b> Raturaj K. Vaidya, Lorenzo De Carli, Drew Davidson, Vaibhav Rastogi	Feb 2019
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