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|  | Swadhyaya Kumar |
| *Contact* | Phone: **+1(949) 373-6137**  **158 Berkeley Avenue, Irvine, CA**  LinkedIn: [**https://www.linkedin.com/in/swadhyaya/**](https://www.linkedin.com/in/swadhyaya/) Email: [**swadhyayak@gmail.**](mailto:swadhyayak@gmail.)**com** Website: [**https://adykumar.github.io**](https://adykumar.github.io) GitHub: [**https://github.com/adykumar**](https://github.com/adykumar) |
| *Education* | [**University of California, Irvine, CA**](http://www.ics.uci.edu/) (GPA:3.73/4.00)  ***M.S. Software Engineering*** *Sept 2015 – Jan 2017*   * Teaching Assistant: Introduction to Software Engineering * Coursework: Algorithms, Software Architecture, Machine Learning, Artificial Intelligence, Information Retrieval, Software Engineering, Analysis of Programming Languages   [**National Institute of Technology (NIT) Trichy, India**](http://www.nitt.edu/)  ***B.Tech. Electronics and Communication Engg., Advisor – Dr. S. Raghavan*** *Jul 2009 – May 2013*   * Coursework: C++, Data Structures, Operating Systems * Thesis: Metamaterials in UWB Antenna Design and Microwave Medical Imaging |
| *Professional*  *Experience* | [**ServiceNow Inc., San Diego, CA**](http://www.servicenow.com/)  ***Software Engineering Intern*** *Jun 2016 – Sept 2016*   * Built an automation engine which detected and fixed vulnerable JEXL expressions with 70% efficiency * Worked on product features like Currency and Application Transactions for the new version roll-out * Designed a module to track JUnit testing progress for incremental ServiceNow platforms which exposed unit-test coverage levels and areas of improvement   [**Intel Security, Bangalore, India**](http://www.intelsecurity.com/)  ***Software Development Engineer*** *Jul 2013 – Aug 2015*   * Collaborated on Advanced Threat Defense(ATD)- Family Classification; the C++ based module’s algorithm improved advanced malware detection for ATD * Implemented ATD features and modules within the Agile based development lifecycle; performed Linux-based development, automation, testing and debugging * Designed a Django-based web module that served malware information and post-analysis database for 2 million+ entries |
| *Skills*  *Platforms* | Java, C++, C, Python, Agile Methodologies, Numpy, Octave, Django, HTML/CSS, SQL  Linux, Windows |
| *Projects* | **Information Retrieval, Next Gen Search Engine***(Python)* *Winter 2016*   * Designed and deployed a web-crawler to index 35k UC Irvine domain web pages; implemented a Page Rank algorithm for queries on this document set * Implemented a Contextual Search Engine based on the data collected for UC Irvine that is user and geo-location sensitive   Nine Men’s Morris, Artificial Intelligence *(Java)* *Fall 2015*   * Used the Minimax algorithm to implement the AI game engine of Nine Men’s Morris game and prune the search space for optimization * Modified game heuristics which led to improved AI play approach in different stages of the game, based on opposition actions   Family Classification, Advanced Threat Defense- Intel *(C++)**Oct 2013- Dec 2014*   * Implemented n-gram comparison of assembly level instructions of unknown network traffic against known malware families to detect likely candidates for malware detection * Automated parallel entry of strong malware candidates into the repository to improve detection of evolving malware and zero-days.   Gender Recognition By Voice, Machine Learning*(Python)**Fall 2016*   * Used ensembles of XGBoost, Neural Network and Decision Trees to predict gender from the given samples of 20 features for voice data. The algorithm showed a correct prediction rate of 99.7% |
| *Awards &   Publications* | Ramaraj, Raghavan, Bose, Kumar, “Elliptical Split Ring Resonator: Mathematical Analysis, HFSS Modeling and Genetic Algorithm Optimization,” Progress In Electromagnetics Research (PIER) Conference 2012, Moscow, Russia, Aug. 2012 |