

## SUMMARY

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Experienced Data Scientist with strong Data Engineering skills that has mainly worked in the invalid traffic and fraud detection space. Interested in full stack roles and solving problems end-to-end, from research to deployment and performance monitoring.

## EXPERIENCE

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- **Oracle Advertising - MOAT** New York, NY  
*Senior Data Scientist* *Jun. 2019 – present*
  - Performing exploratory data analysis on ad measurement data for desktop, mobile and connected TV devices
  - Designing, implementing and automating data pipelines
  - Designing, implementing and automating machine learning pipelines
  - Tools: Python, scikit-learn, pandas, spark, pymc, SQL, linux, Airflow, Kubernetes, Argo Workflows, Grafana, Prometheus
- **Perspecta Labs (former Vencore Labs, Applied Communication Sciences)** Baskin Ridge, NJ  
*Cyber Security Research Intern* *Jun. 2018 – Aug. 2018*
  - Developing botnets of the Fast Flux family, on top of the CyberVAN tesbed.
  - Evaluating the performance of the botnets using intrusion detection systems and machine learning based techniques.
  - Tools: C++, Winsock, GoLang, Python, Linux and Windows operating systems.
- **Rutgers, The State University of New Jersey** New Brunswick, NJ  
*Research Assistant - HCI & Security Engineering Lab - Advisor: Prof. Janne Lindqvist* *Sep. 2016 – May 2019*
- **Rutgers, The State University of New Jersey** New Brunswick, NJ  
*Lead Teaching Assistant - Computer Architecture Lab* *Sep. 2016 – May 2019*
  - Teaching Assembly MIPS to approximately 80 students.
  - Preparing and grading lab assignments.
- **Rutgers, The State University of New Jersey** New Brunswick, NJ  
*Research Internship* *Jun. 2014 – Sep. 2014*
  - Research Areas: Pattern Recognition, Machine Learning, Security and Privacy, Human Computer Interaction
- **Digi4sites.com** Athens, Greece  
*Software Engineer* *Jun. 2012– Sep. 2014*
  - Responsibilities: Developing custom websites using HTML, CSS, jQuery, MySQL; Server administration using Amazon Web Services (AWS) tools.

## EDUCATION

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- **Rutgers, The State University of New Jersey, HCI & Security Engineering Lab** New Brunswick, NJ  
*Masters in Electrical and Computer Engineering ; Advisor: Prof Janne Lindqvist; GPA: 3.9* *Sep. 2016 – May 2019*
  - **Courses:** Massive Data Mining and Learning, Parallel and Distributed Computing, Software Engineering, Regression Analysis, Security Engineering, Operating Systems
  - **Online courses:** Neural Networks and Deep Learning
- **National Technical University of Athens (NTUA)** Athens, Greece  
*Masters of Engineering in Electrical and Computer Engineering; GPA 3.6* *Sep. 2010 – Sep. 2015*
  - **Thesis:** Created an android based **Gesture Authentication System** using Machine Learning Models, Hidden Markov Models; Grade 10/10
  - **Courses:** Artificial Intelligence, Databases and Information Systems Engineering, Algorithms and Data Structures, Programming Languages, Computer - Communication - Mobile Networks

## PROGRAMMING SKILLS

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- **Languages:** Java, Python, C/C++, MATLAB, Javascript, SQL
- **Frameworks/Libraries:** Scikit Learn, Pandas, Hadoop, SQL, AirFlow, Kubernetes, Argo, pthreads, ISPC, Django,
- **OS:** Linux, Windows

## RESEARCH PROJECTS

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- **Machine Learning and Social Protocols for Enhancing Spectrum Access**  
*Advisor: Prof. Janne Lindqvist* *Sep. 2016 – Mar 2019*
  - Designed experiments to measure participants' behavior under lossy networks.
  - Designed experiments to get objective video quality assessment of videos streamed under lossy networks.
- **Video Guessing Attacks**  
*Advisor: Prof. Janne Lindqvist* *Mar. 2018 – Mar 2019*
  - Perform PIN guessing attacks based on video with no view of the victim's screen.
- **Human Behavior Prediction**  
*Advisor: Prof. Janne Lindqvist* *Sep. 2016 – Mar 2019*
  - Create predictive models of human behavior based on collected data.
  - Built a web-based tool to facilitate data collection.
- **Analyze System Administrators' Vulnerability-handling Behavior**  
*Advisor: Prof. Janne Lindqvist* *Oct. 2017 – Dec. 2017*
  - Mined data from IPv4 network scanners and disclosed vulnerabilities datasets.
  - Applied exploratory data analysis methods and created models with predictive power.
- **Novel Video Quality metric for Long Videos**  
*Advisor: Prof. Janne Lindqvist* *Sep. 2017 – Dec. 2017*
  - Developed a novel video quality metric for longer videos, taking into account video freeze events and frame distortions.
- **Social Protocols for Enhancing Network Connectivity Sharing**  
*Advisor: Prof. Janne Lindqvist* *Sep. 2017 – Dec. 2017*
  - Designed experiments to measure participants network connectivity sharing choice based on nudges.
  - Built a web-based tool to facilitate data collection.

## COURSE PROJECTS

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- **Massive Data Mining and Learning:** TheNextHit: Predicting movie success and building Content and Collaborative Filtering recommendation system.
- **Parallel Computing Project:** Wrote CUDA C/C++ code for multi-core CPU architectures and heterogeneous CPU-GPU system applications
- **User Authentication System:** Developed an User authentication system running on Android smart-phones. User-generated gestures are used for identifying the users. Hidden Markov Models were used for modeling the gestures
- **Restaurant Automation System:** Developed an automation system using the Django Python Framework and the MVC design architecture
- **Hotel Management Information System:** Developed a Hotel Management System using Dynamic Web Technologies; PHP, html, css, javascript, MySQL

## HONORS AND AWARDS

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- **2018:** Winner of the Rutgers State University TA/GA Development Fund
- **2017:** Winner of the Gerondelis Foundation Grant

## ACADEMIC SERVICE

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- **SOUPS 2018:** External Reviewer
- **WWW 2018:** External Reviewer
- **SOUPS 2017:** External Reviewer
- **IMWUT 2017:** External Reviewer

## PAPERS

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- Xianyi Gao, Yulong Yang, Can Liu, **Christos Mitropoulos**, Oulasvirta Antti, Janne Lindqvist. "Forgetting of Passwords: Ecological Theory and Data", USENIX Security '18