Nikolaos Kalampalikis

CONTACT

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SKILLS

</> LANGUAGES
Python, C, C++, Java, SQL, Go.

☁ WEBWARE
HTML, CSS, Typescript, AWS, REST API.

▤ DATA SCIENCE
Numpy, Scipy, Pandas, Matplotlib, Keras, Tensorflow, R.

🔧 TOOLS & FRAMEWORKS
Git, Linux Shell, Docker, Bazel, Robot, Unit Testing.

⬡ DESIGN
Agile Methodologies, Waterfall, Object Oriented Design Patterns, Test Driven Development.

COURSEWORK

🏛 GRADUATE
Algorithms & Data Structures
Discrete Mathematics
Theory of Computation
Artificial Intelligence
Statistical Learning
Numerical Methods
Linear Algebra

🏛 UNDERGRADUATE
Object Oriented Design
Database Systems
Software Engineering
Computer Networks
Operating Systems

EDUCATION

MASTER OF SCIENCE IN APPLIED MATHEMATICS
Worcester Polytechnic Institute | December 2021 | GPA: 3.48
- Graduate Assistantship
- Backlin Scholarship

BACHELOR OF SCIENCE IN COMPUTER SCIENCE
Worcester Polytechnic Institute | May 2019 | GPA: 3.31
- $40K+ in merit scholarship awards, Dean's List
- National Hellenic Student Association (NHSA), WPI Ski Team

EXPERIENCE

TEACHING ASSISTANT | Worcester Polytechnic Institute
Sep 2019 – Present | Worcester, MA
- Responsible for putting on conferences to full-size classes as well as assisting students in tutoring sessions and office hours.
- Assisted in the teaching of courses such as Linear Algebra, and Calculus.

SOFTWARE ENGINEER INTERN | 128 Technology
May 2020 – Aug 2020 | Burlington, MA
- Worked on the Systems Team overseeing the core functionality of the 128T router, along with the utilities that interact with it.
- Personally responsible for developing the save-tech-support command line tool which saves all the debugging logs of the router. The main script of the command was developed in Python and Go, and the integration testing was in Robot.

SOFTWARE ENGINEER INTERN | Pivotal Software Inc.
Jun 2019 – Aug 2019 | Palo Alto, CA
- Worked on the Cluster Management (CM) team aligned to the GreenPlum database product, which was responsible for all the CLI utilities interacting with the database while operating within 2-week sprints on top of daily scrums.
- Personally responsible for fixing several issues and running test pipelines on the cluster utilities, as well as developing the new upgrade utility.

RESEARCH/PROJECTS

ALGEBRAIC GRAPH THEORY SURVEY | Graduate Thesis
January 2020 – Present
- In my thesis, I give an exposition of the theory of weighing matrices and their importance in the graph theoretic results connected to the sensitivity conjecture.

INFECTIOUS DISEASE SIMULATION | Class Research Project
March 2020 – May 2020 ⌘ ▤
- Worked within a team of 3 to research and develop a non-linear SIR model for undirected graphs that identifies the super spreaders by efficiently computing their subgraph centrality using the Lanczos approximation.

AUTHENTICATION FOR WEARABLE DEVICES | Undergraduate Thesis
May 2018 – May 2019 ⌘ ▤
- Worked within a team of 4 to develop a model for wearable devices that uses physiological data in order to perform user authentication. The model was a Convolutional Neural Network optimized by a Genetic Algorithm.
- Analyzed metrics of the model and compared accuracy results between the two main physiological signals used.

HOSPITAL GUIDE | Class Project
October 2017 – December 2017 ⌘
- Worked in a team of 11 to develop a guide application for Brigham Women's Main Hospital. It was a complete Java application with a GUI in FXML. The application included features such as pathfinding and service requests.
- As the Assistant Lead Developer, I was responsible for the map building and pathfinding algorithms, as well as the search engine for the destination selection.