

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: 3.4

- Graduate Assistantship.

BACHELOR OF SCIENCE IN COMPUTER SCIENCE

WORCESTER POLYTECHNIC INSTITUTE | MAY 2019 | GPA: 3.3

- \$40K+ in 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 ENGINEERING INTERN | 128 TECHNOLOGY

May 2020 – Aug 2020 | Burlington, MA

- Worked in the Systems Team that is overseeing the core functionality of the 128T router, as well as 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 ENGINEERING INTERN | PIVOTAL SOFTWARE INC.

Jun 2019 – Aug 2019 | Palo Alto, CA

- Worked in the Cluster Management (CM) team for the GreenPlum database product. The CM team is responsible for all the CLI utilities that interact with the database, while it operated with 2-week sprints, and 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.