ATHANASIOS KOUGIONIS

athanasioskougionis@gmail.com | Personal Website | Github | Bethlehem, PA 18015

PROFILE

Resourceful, and innovative Software Engineer with expertise in multiple programming languages used to develop software. Skilled in providing strategic leadership of short- and long-term goals through the use of innovative techniques in support of the company's mission and core values, as a means to implement positive change and increase performance. Adept at enhancing team performance, and proactively identifying opportunities for development and advancement. Looking to utilize my expertise and experiences to develop a long-term career with a future-oriented, reputable organization.

SKILLS

Soft Skills: Fast Learner, Team leadership, Attention to Details, Organizational Skills, Effective Communication, Relationship Building, Strong Work Ethic, Time Management, Problem Analysis & Resolution

Software skills: Java, Python, R, SQL, Rust, C, C++, JavaScript, PowerShell, MATLAB, Linux, UNIX, Git

EDUCATION

Lehigh University | Bethlehem, PA

B.S, Computer Science (3.4 GPA)

Coursework: Software Engineering, Analysis & Design of Algorithms, Machine Learning, Computer Vision, Blockchain, Data Structures, Web Systems Programming, Database Systems, Systems Software, Operating System Design.

WORK EXPERIENCE

Software Development Intern

Citrix, Patras, Greece

Created high-quality software design and architecture, as well as applications in accordance with technical standards.

- Automated tasks through appropriate tools and scripting.
- Performed validation and verification testing.
- Applied advanced troubleshooting techniques (debug and diagnosis) on critical problems.
- Implemented scalable, efficient, and cost-effective network automation framework.
- Wrote and tested code to ensure compatibility and stability: refine and rewrite as necessary.
- Configured and maintained wide area network (WAN) or local area network (LAN) routers or related equipment.

May 2020 - Sep 2020 **Research Assistant**

Creative Inquiry & Mountaintop Initiative, Lehigh University

- Developed a new programming language, MECH, used for developing data-driven and reactive systems.
- Created process diagrams and charts to explain the capabilities of a new programming language before coding them.
- Conducted routine audits to identify program inefficiencies and brainstorm methods to enhance the process.
- Created curriculum and instructional support that targeted and engaged all students in the usage of MECH for small-scale robotics programming.
- Scheduled and collaborated with students individually and in small groups to evaluate and enhance learning and increase overall performance.

May 2020 - Aug 2020 Research Assistant

Computer Science Department, Lehigh University

- Constructed algorithms to dynamically route energy-aware vehicles with temporal logic constraints.
- $Implemented \, deterministic \, and \, cost\text{-}efficient fuel \, model \, algorithms \, using \, Python.$
- Addressed motion planning problems with specifications given in linear temporal logic formulas.
- Encouraged the creation of heuristics or approximation algorithms that produce acceptable results with a reduced level of complexity.
- Conducted case studies on the findings of that algorithm and simulated the data in VREP via scripts written in Python.

Teaching Assistant

Aug 2020 - Present

Aug 2018 - May 2022

May 2021 - Aug 2021

- Creative Inquiry & Mountaintop Initiative, Lehigh University
- Designed, coordinated, and delivered guidance using specific methodologies to teach Courses. (Software Engineering, Foundations of Discrete Structures and Algorithms).
- Supervised over 150 students on major lecture course and moderate lecture course.
- Using a variety of methods and techniques, provided effective, timely, and appropriate feedback to students to support their learning.
- Provided diverse services as course assistants, which include grading student papers and examinations, attendance at lectures, and other duties as assigned.
- Assisted in the preparation and execution of developmentally relevant programs and interventions.
- Motivated students by a professional, responsive, and cordial attitude to perform at their highest level

Computing Assistant

Jan 2021 - May 2021

- Library Technology Services, Lehigh University
- Improved the functionality of the university's software distribution system by writing automation scripts and removing technical debt.
- Developed documentation for use of the university's software-as-a-service platform.
- Created detail, comprehensive, and well-structured plans to identify system requirements.
- $Investigated\ the\ causes\ of\ software\ quality\ problems\ and\ implement\ solutions\ as\ necessary.$
- $Developed \ and \ kept current knowledge of the \ organization's \ variety \ of applications \ and \ the \ effect \ of innovations.$

LANGUAGES

English(fluent)

Greek(fluent)

German(limited working proficiency)