

# Alexander G. Liapis

alex.liapis@rice.edu

[www.linkedin.com/in/alexander-liapis](https://www.linkedin.com/in/alexander-liapis)

(832) 858 6658

<https://alexgliapis.github.io/>

## Education

### Rice University

Master of Science in Computer Science

*Expected Dec. 2021*

GPA: 3.80 / 4.0

### University of Texas at Austin

Bachelor of Science in Chemical Engineering

*Aug. 2015 – May 2020*

Minor in Elements of Computing

Minor in Business Foundations Program

GPA: 3.74 / 4.0

## Relevant Courses

- Algorithmic Robotics (C++)
- Computer Security (C++, Python, JS)
- Software & OOP Design (Java, JS, HTML)
- Software Engineering, I & II (Python, JS, HTML)
- Databases (SQL, HDFS, Spark, Apache Beam)
- Deep Learning & Data Analytics (Scikit, Pd, TF)
- General & Convex Optimization (OpenSolver)
- Process Control (MATLAB)

## Work & Internship Experience

### Software Engineering Intern at Tracey Technologies

*May 2021 – Aug. 2021*

- Implemented a pipeline of image transformations and calculations to report a “dryness” score for each eye exam
- Cleaned up older code segments and organized input data for a new module

### Software Development Intern at Lolaark LLC

*June 2020 – Sep. 2020*

- Applied image processing techniques in MATLAB to improve image quality in hazy, low-light underwater settings
- Analyzed image transforms & color formatting in videos to reduce the effects of light distortion & water murkiness

### Process Controls Intern at Covestro

*May 2019 – Aug. 2019*

- Created a workflow that digitalized the instrument documentation site-wide for a planned savings of \$400,000
- Programmed a tool (VBA) that automatically classified document status and assigned the appropriate action

### Diagnostic Radiology Intern at MD Anderson Cancer Center

*July 2018 – Aug. 2018*

- Worked alongside a radiologist to learn how to identify lesions and apply that to image processing with OpenCV
- Built prototype image matching program using edge detection/feature matching to identify similar CT scans

### Teaching Assistant at Rice University

*Aug. 2021 – Present*

- Taught algorithm design theory during office hours and answered in-depth questions
- Graded assignments and tests, with feedback on each problem

### Undergraduate Research Assistant Studying Block Copolymer Films at UT Austin

*Aug. 2018 – Dec. 2019*

- Utilized the UT supercomputers to run physics-based simulations of block copolymer structures
- Wrote several programs to build simulated polymer morphologies and analyze results of test

### Tutor at UT Austin Sanger Learning Center

*Jan. 2018 – May 2018*

- Worked in a team setting to teach core topics and work through assignments and questions
- Helped students understand difficult concepts by developing and implementing lesson plans

## Skills

- **Programming Languages:** Python, Java, C++, SQL, JavaScript, HTML, CSS, VBA
- **Libraries & Technologies:** Git, HTTP, GCP, AWS, Heroku, Docker, Flask, JQuery, Postgres, SQLAlchemy, Apache Beam, Airflow, Spark, HDFS, Scikit-learn, SciPy, TensorFlow, Pandas, OpenCV, Cilk Plus, Excel, OpenSolver, MATLAB CVX, MATLAB Image Processing ToolBox
- **Applications:** MATLAB, Aspen, GAMS, Mathematica, JMP, Microsoft Word, Excel, MS Office
- **Languages:** Fluent in English, Greek, and intermediate proficiency in French

## Awards & Honors

- American Hellenic Educational Progressive Association Scholarship *2019, 2020, & 2021*
- Hellenic Professional Society of Texas Scholarship *2015*
- University of Texas Health Classified Staff Council Educational Award *2015*