# Alexander G. Lucaci

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#### **EDUCATION**

Ph.D. Candidate in Bioinformatics

2018 - Present

Temple University

Institute for Genomics Evolutionary Medicine (iGEM)

Dissertation mentored by Dr. Sergei Pond

M.S. in Biology 2016-2018

New York University

B.S. in Biochemistry 2011

Stony Brook University

### **EXPERIENCE**

Temple University

Spring 2022-Present

Graduate Research Assistant

• Development, validation, and application of statistical methods which evaluate the effects of mutational events on the inference of evolutionary rates.

Maxim Group Fall 2021 - Present

Intern - Biotechnology Equity Research

Initiate coverage on companies with investment recommendations based on fundamental analysis. Modeling companies under coverage using financial valuation methods and report on company earnings.

Temple University Fall 2021

Graduate Teaching Assistant - Genomics in Medicine

• Directed over one hundred and fifty students in a cross-listed (Graduate and Undergraduate) course in a virtual format. Responsible for teaching material, grading, quizzes and exams, holding office hours and guidance on assignments

#### ROTH Capital Partners

Spring 2018

Intern - Healthcare Investment Banking

• Participated in the process IPO process for a NASDAQ listed company. Responsible for current healthcare IPO market data, curating pitch decks for senior managers and research for (M&A) deals.

## SELECTED PUBLICATIONS

- ${\bf 1.}\ Rapid\ epidemic\ expansion\ of\ the\ SARS-CoV-2\ Omicron\ variant\ in\ southern\ Africa\ (Accepted\ at\ Nature)$
- 2. The emergence and ongoing convergent evolution of the N501Y lineages coincides with a major global shift in the SARS-CoV-2 selective landscape (Accepted at Cell)
- **3.** Extra base hits: widespread empirical support for instantaneous multiple-nucleotide changes (Accepted at PLOS One)
- **4.** Human HspB1, HspB3, HspB5 and HspB8: Shaping these Disease Factors during Vertebrate Evolution (submitted)
- **5.** RASCL: Rapid assessment of SARS-COV-2 clades enabled through molecular sequence analysis (manuscript in preparation)