

Caspar Lant

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EDUCATION

Bachelor of Science, Physics, Computer Science Minor
New York University, New York, NY

- Society of Physics Students
- Cumulative GPA: 3.7/4.0

Advanced Honors Regents Diploma,
Stuyvesant High School, New York City, June 2014

EXPERIENCE

- Feb 2017 – Present **NYU Shanghai Air Pollution Monitoring Network**, Shanghai, China
Student Project Leader – Green Grant Recipient
- Fabrication and deployment of low-cost air-quality monitors based on United Nations Environmental Programme design
 - Air quality information to be made available to all members of the NYU community via internet API and WeChat enterprise account
- May – Dec 2017 **Leibniz Institute for Surface Modification (IOM)**, Berlin, Germany
DAAD RISE Fellow and DURF Scholar
- On-the-fly troubleshooting during high-intensity experimental campaigns
 - Analysis of experimental data, presented at Gordon Conference on liquids
 - Computer modeling of magnetic bottle spectrometer using SIMION
 - Design and development of continuous-flow nitrogen cryostat
 - Preliminary data-collection and design for future experiments
- Aug 2017 **Berlin Atonal Music and Art Festival**, Berlin, Germany
Artist
- Design, assembly, and operation of a large-scale commissioned light installation
- Sept 2016 – Feb 2017 **EMIL@BESSY II, Helmholtz Zentrum (HZB)**, Berlin, Germany
Researcher
- Research in metal-induced crystallization of silicon under Dr. Simone Raoux
 - Sputter deposition in ultrahigh vacuum, training in analytic methods used for the characterization of energy materials
 - The Energy Materials In situ Laboratory (EMIL) is a joint venture between the Helmholtz Association and the Max Planck Society
- Jan – July 2016 **Physics Department, New York University**, New York, NY
Research Intern
- Research in giant magnetoresistance under Dr. Andrew Kent
 - Wire-bonding, soldering, circuit board and interface fabrication
 - Investigation of the thermal stability of cobalt-nickel nanopillars
- July – Aug 2015 **Altova Softwarehaus**, Vienna, Austria
Quality Assurance Intern
- Designed unit tests for Java SE 8 compatibility in Altova software products
- 2013 – 2016 **Face The Music**, New York, NY
Student-Teacher and Musician
- Worked with professional ensembles to perform contemporary-classical music in multiple New York venues

SKILLS

Spoken Languages: English, German, Chinese (Elementary)
Programming Languages: Java, Python, C, Bash, L^AT_EX, Lua
Software Tools: LabView, IGOR, Origin, Fusion 360, SIMION

AWARDS

NYU Green Grant for Environmental Awareness: \$10,000
NYU Dean's Undergraduate Research Fund Fellowship: \$3,000
DAAD RISE Scholarship from German Government: \$3,000