
EDUCATION

Hebrew University Faculty of Agriculture, Rehovot, Israel
M.Sc. in Agricultural Sciences; GPA: 93/100

October 2018

Northwestern University, Evanston, IL

December 2013

B.A. in Earth & Planetary Sciences, **Minor** in Environmental Policy and Culture; GPA: 3.66

EXPERIENCE

M.Sc. Research, Plant Scientist – Volcani Center, Israel Ministry of Agriculture

December 2016 – October 2018

- Explored interactions between LED lighting and seed priming on growth, nutritional content, and stress tolerance of lettuce and arugula
 - Designed, scheduled, and implemented entire experiment from seeding, to phenotyping, to statistical analysis
 - Operated and maintained growing systems and inputs
 - Designed and built adjacent growth chambers to maximize spatial efficiency and lighting uniformity
 - Configured LED grow units for equal irradiance across varied spectral outputs for all growth chambers
 - Prepared and regularly monitored fertigation solution to ensure alignment with experimental protocol
 - Imaged and analyzed plant morphological traits (i.e. root, shoot, stomatal development) via imageJ software and microscopy
 - Measured plant metabolites and antioxidant activity via organic extraction and spectrophotometry
 - Increased antioxidant activity, flavonoid and carotenoid concentrations by 136% in lettuce, 45% in arugula
 - Quantified relative enzyme expression via qPCR
 - RNA extraction and purification, cDNA synthesis, and qPCR amplification
 - Conducted daily scan of growing area to ensure IPM guidelines and growing conditions were in order
 - Ran statistical analyses and generates graphics on 20,000+ data points of plant morphology, physiology, hormonal and genetic expression using JMP Statistical Software (SAS), R, and Microsoft Excel

Goby Inc. – Chicago, IL

June 2014 – July 2016

- **Team Lead – Client Onboarding**

February 2016 – July 2016

- Directly managed 7-person team in initial bulk-data collection, integration, and reporting for all new clients and projects
- Developed team KPIs to maximize efficiency, accuracy, and transparency
- Lead educator for all new data analysts on Salesforce functionality and effective communication techniques for both business and technical requirements with clients and internal teams
- Designed new training program materials, methodologies, and evaluation protocol for all new analysts

- **Data Analyst and Salesforce Administrator**

June 2014 – February 2016

- Sole manager of data collection, organization, analytics, and reporting for \$7.8 billion portfolio, 1000+ buildings
 - Collected and analyzed sustainability metrics such as utility consumption trends, heating and cooling systems, and lighting systems to evaluate building- and portfolio-level sustainability performance
- Built relationships with utility companies, municipalities, and data aggregation services for increased data availability
- Assisted client's Director of Sustainability in design and reporting of new corporate sustainability reporting metrics
- Worked directly with Goby CEO to facilitate company's first \$1 million+ dollar contract
 - Gathered requirements, produced on-demand portfolio analytics, and finalized proposal elements
- Salesforce.com Administrator
 - Worked with software development team on design and deployment of custom reporting across all clientele
 - Created value-driving data analytics and visualizations for clients and Goby sales and marketing teams
- Achieved LEED Professional Accreditation from US Green Building Council

TECHNICAL SKILLSET

- Microsoft Office – Advanced Proficiency
- R (Programming Language) – Intermediate Proficiency
 - Certificate of Completion: “R Programmer Track” - *DataCamp*
- JMP Statistical Software (SAS) – Intermediate Proficiency
- Salesforce.com – Intermediate Proficiency

RECOGNITION

Best Poster Award – 5th Conference of the Israel Society of Crop and Vegetable Sciences

March 2018

- LED Lighting and Seed Priming to Enhance Growth and Nutritional Content of Rocket (*Eruca sativa*)

PUBLICATIONS

- Ginzburg, D., Klein, J. (2018). Synergisms between carvacrol seed priming and blue LED exposure on growth and nutritional content of lettuce and arugula baby greens. Manuscript in Preparation.
- Ginzburg, D., Klein, J. (2019). Red and blue LED exposure improve growth and nutritional content, yet increase vulnerability to drought in lettuce and arugula baby greens. Manuscript in Preparation.
- Klein, J., Ginzburg, D. (2019) Seed Priming-Induced Abiotic Stress Tolerance in Plants. In *Priming-mediated Stress and Cross-stress Tolerance in Plants*. Elsevier, United States. Manuscript in Preparation.
- Zimmerman, A. M., Specht, M. G., Ginzburg, D., Pollanen, J., Li, J. I. A., Collett, C. A., ... & Halperin, W. P. (2013). Anisotropy of Silica Aerogels Induced by Small Strain. *Journal of Low Temperature Physics*, 171(5-6), 745-749.

COURSEWORK (all at M.Sc. level)

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| • Advances in Controlled Environment Crop Production | • Biotechnology for Agricultural Crop Production |
| • Plant Physiology | • Post-Harvest Biology and Technology |
| • Mineral Nutrition of Higher Plants | • Modern Irrigation Systems |
| • Experimental Design and Statistical Analysis | • Plant-Microbe Interactions |
| • Integrated Pest Management | • Microbiology of Aquaculture Systems |

LANGUAGES

English – Fluent (Native Language)

Spanish – Conversational proficiency

Hebrew – Conversational proficiency