

David Oniani

Please visit <https://www.davidoniani.com> for my papers, projects, and more!

Education

- 08/2017 – 06/2021 **B.A. Computer Science, Mathematics**, *Luther College*, Decorah, IA.
Double major in mathematics and computer science. Academic advisor: Dr. Alan K. Zaring.
- 10/2016 – 12/2016 **Sales MBA Diploma**, *International Sales Institute*, Tbilisi, Georgia.
Rigorous trainings in inbound & outbound sales, merchandising, and marketing operations.
- 09/2011 – 07/2016 **High School Diploma**, *Komarovi Campus School*, Tbilisi, Georgia.
Graduated with the highest honors. Represented the school in various math and physics olympiads.

Work Experience

- 02/2020 – 05/2020 **R&D Intern**, *Mayo Clinic, Kern Center*, Rochester, MN.
 - Work directly under Dr. Feichen Shen and Dr. Yanshan Wang in the division of Dr. Hongfang Liu.
 - Apply state-of-the-art AI and NLP techniques to facilitate continuous improvement of patient experience.
 - Attend trainings, presentations, and mentor meetings.
- 08/2018 – 12/2019 **Preceptor**, *Luther College*, Decorah, IA.
Fall 2019 *Object-Oriented Programming With Java (CS 252) with Dr. Shafqat A. Shad.*
Fall 2018 *Introduction to Computer Science (CS 150) with Dr. Alan K. Zaring.*
 - Held help hours and assisted students with homework assignments.
 - Attended all classes and answered students' questions during the labs.
- 06/2018 – 12/2018 **Web Programmer**, *Luther College, ITS - Software Development*, Decorah, IA.
 - Contributed to the brand new *Norse Hub* web system which has successfully replaced my.luther.edu.
 - Communicated with the team, wrote reports, and attended weekly SCRUM meetings.
 - Conducted performance & load testing using JMeter and presented the results.
 - Created a data visualization tool utilizing JavaScript DOM.
 - Migrated from the Microsoft to the Linux server and refactored the Python code.
- 03/2017 – 07/2017 **Co-Founder and CEO**, *Warbler*, Tbilisi, Georgia.
 - Spearheaded the team of young and enthusiastic software developers.
 - Processed five-year data (180k+ rows) of UNE (Unified National Exams of Georgia).
 - Designed the logo; built the pitch, presentation, and the WordPress-based website for the start-up.
 - Created a social media chatbot using Chatfuel API and set up Zoho mailing system.
- 11/2016 – 09/2017 **Freelance Graphic Designer**, *Behance (not affiliated)*.
 - Designed logos and posters for various companies in the local and the global market.
 - Instructed and taught the basics of design to several aspiring graphic designers.
- 10/2016 – 06/2017 **Sales Representative and Marketing Coordinator**, *Insta LLC*, Tbilisi, Georgia.
 - Partook in the complete rebuild and redesign of sales and marketing departments.
 - Contributed to the CRM, was responsible for data gathering, filtering, and entry.
 - Managed social media, responsible for targeted campaigns, copywriting, and image-editing.
 - Cold-called and contacted clients to build and maintain long-term relationships.
 - Attended a number of staff meetings and new product/partner presentations.

Research Experience

- Fall 2019 **Directed research in programming languages with Dr. Alan K. Zaring.**
 - Redesigned and made a few significant contributions to the type system.
 - Introduced the notion of container types to the language.
 - Designed relational operators for container types.
- Summer 2019 **Collaborative research on visual persuasion with professor Richard K. Merritt.**
 - Trained convolutional neural networks for image recognition using PyTorch.
 - Wrote Python scripts for PDF image/text extraction and data cleanup.
 - Performed an extensive set of both statistical and textual/NLP analyses using state-of-the-art algorithms.

Summer 2018 **Collaborative research on unit testing with Dr. Roman Yasinovskyy.**

- Automated feedback generation for C++ programming course.
- Redesigned and significantly improved SQL and relational algebra solution checker.
- Designed testable practice problems for the algorithms and data structures course.

Volunteer Experience

2016 [Transparency International Georgia](#)

Observed Georgian Parliamentary Elections

2016 [Khan Academy](#)

Subtitled Georgian and Russian videos

Honors and Awards

2017, 2018, 2019 Multiple Competitive Scholarships, [Luther College](#)

2018, 2019 Recipient of 2 Luther College Dean's Office Summer Research Awards, [Luther College](#)

All Semesters Dean's List Recipient, [Luther College](#)

2017 Selected Start-up Project ([UnleashAR](#)), TOP 200, [Wolves Summit](#)

2016 Gold Medal for Academic Excellence, [Ministry of Education and Science of Georgia](#)

2011 – 2016 Five-time Finalist (7th Place, TOP 10, in 2014), [National Mathematics Olympiad of Georgia](#)

2014 IMO & IPhO Nominee, [Ministry of Education and Science of Georgia](#)

2011 – 2016 Won a number of various mathematical olympiads, Varied

Other Courses and Certificates

2019 [Machine Learning & AI: Advanced Decision Trees](#), LinkedIn Learning

2019 [NLP with Python for Machine Learning Essential Training](#), LinkedIn Learning

2018 [Machine Learning Crash Course](#), Google

2017 [Think About It](#), Campus Clarity

2017 [How to Rock Social Media](#), LinkedIn Learning

2016 [South Caucasus Leadership Forum Participant](#), GSFL, Friedrich Naumann Foundation

2016 [Parliamentary Elections Observation Mission Training](#), Transparency International Georgia

Technical Skills

Languages: Python, Haskell, Shellsript (POSIX-compliant), Rust, JavaScript, Java, R, C++, C, HTML, CSS, TypeScript, Bash, Zsh, Vimscript, SQL, Standard ML, Scheme, VBA, Lua, C#, CCL, Batch script, Prolog.

Development: macOS, Linux, kitty, Neovim, VS Code, Git, Jekyll, WordPress, Virtual Box, GitHub, Jupyter, SageMath,

Tools: RStudio, Cron, Travis CI, Blender, Unity, Adobe Illustrator, ZBrush, Substance Painter, 3DS Max.

Other Skills: \LaTeX , Technical Writing, Markdown.

Language Proficiency

English Native Proficiency

Georgian Native Proficiency

Russian Native Proficiency

Japanese Elementary Proficiency

Mingrelian Native Proficiency (one of Kartvelian languages, widespread in western parts of Georgia)

Papers, Reports, and Poster Presentations

2019 [Textual and Statistical Analysis of Russian IRA Facebook Advertisements](#)

2019 [Type Inference Rules For Container Types in CCL](#)

2019 [The Topology of Robotic Configuration and Motion Planning](#)

2018 [Unit testing frameworks in the classroom \(applied research report\)](#)

2018 [Photography as a socially influential medium in Jennifer Baichwal's *Manufactured Landscapes*](#)