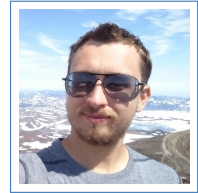


# Michael Berger

## Curriculum Vitae

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in Michael-Berger-E  
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## Experience

2011-2017 **SW Developer**, ISRAELI NAVY INTELLIGENCE, Haifa.

- Support of computing infrastructure for a team of experts performing continuous loop of data acquisition, analysis and deployment of information on multiple sites.
- Maintenance and further development of an existing Asp.Net/SQL - based solution for computer-aided classification.
- Development of software and work procedures for robust deployments of mentioned solution and information to multiple sites.
  - Development of custom tool for creating incremental updates for sites lacking network connectivity.
- Development of management tools for massive audio recordings database, with an emphasis on robust metadata input methods
- Extensive maintenance and development with MS SQL database
  - Developing new features
  - Exposing data discrepancies and fixing them
  - Development of stored procedures for automatic conversion to different database structure
  - Creating backup procedures, performing and supervising server backups
- Development of POC software for mining massive amounts of acoustic data - in collaboration with Rafael; Matlab as main research environment
  - Developing statistical algorithms for extraction and interpretation of spectral features in acoustic data
  - Database design
  - HMI design
  - Interactive data visualisation
  - Performance improvement by utilizing parallel/GPU/cluster computing with Matlab tools
- Data recovery using 010 editor scripting engine (FAT file system)
- Facilitating version control (Git) adoption on all team software projects
- Fun side project - Designing modern style icons and insignia for the team
- Maintenance officer: maintaining computing and electronic equipment inventory.

## Education

### Formal

2007- 2011 **B.Sc, Applied mathematics**, Holon Institute of Technology, GPA – 79.0, Applied mathematics faculty, Bioinformatics specialization.

Main disciplines learned:

- Mathematical modelling, Approximation theory, Numeric analysis, Mathematical Simulation, GeoInformation systems
- Complex functions, Fourier series,
- Genetics, Biological Processes, Genetic algorithms, Medical imaging analysis,
- Programming, algorithms and data structures, Computer architecture, C#, .Net, Matlab

## Courses

- 2018 **Introduction to Machine learning**, *udemy.com*, 50 hours.  
Main topics covered in the course:
- Regression, Classification, Clustering
  - Association Rule Learning, Reinforcement Learning, Natural Language Processing
  - Deep Learning, Dimensionality Reduction, Model Selection
- 2017-present **Data Science Specialization**, *Coursera.org*, 160 hours, *GPA – 8.0*.  
Main topics covered in the course:
- Statistical inference, Regression Models, Machine Learning
  - Exploratory Data Analysis, Reproducible Research, R, Rstudio, Markdown, Shiny
- 2016 **Software engineering with Matlab**, *Navy Mamtam*, 40 hours.
- 2015 **Image processing course**, *Israel Air Force*, 50 hours.
- 2006 **PC hardware service and maintenance course**, *Saint Petersburg City Palace of Youth Creativity*, 170 hours.

## Military Service

- 2011-2017 **Israeli Navy Intelligence**, *Academisation track*.  
Highest rank - Senior academic officer

## Technologies

- Advanced Asp.Net, C#, Vb, SQL, R, Matlab
- Intermediate MSSQL Server, IIS and Windows file server administration, cmd scripting, VirtualBox, git
- Basic Python, Linux/Ubuntu, Networking, Machine learning, Deep learning

## Interests

### Data science

- Machine learning
- AI
- Big Data

### Software development

- Free and open source software
- elegant and robust code

### Sports

- Rock climbing
- Bicycle
- Krav-maga

## Languages

- Russian Mother tongue
- Hebrew Fluent, a bit slow at reading
- English Fluent