Gergo Szekely's computer experiences

School — University of Maryland

Computer Science
- Introduction to C Programming
- Computer Science I — C++
- Computer Science II — C++
- Discrete Structures
  - Predicate Logic
  - Number Theory
  - Mathematical Induction
  - Graph Theory
- Organization of Programming Languages
  - Scripting Languages
  - Regular Expressions
  - Functional Programming
  - Concurrency
  - Garbage Collection and Memory Management
- Algorithms
  - Growth of Functions
  - Recurrences
  - Sorting
  - Graphs and Trees
  - NP-completeness
- Computer Organization
  - Assembly Language
  - Design of Digital Logical Circuits
  - Organization of CPUs
    - Instruction Sets
    - Register Transfer Operations
    - Control Microprogramming
    - Data Representation
  - Memory and I/O organization
- Data Structures
  - AVL Tree
  - Binary Search Tree
  - B+ Tree
  - PM Quad Tree
- Computational Methods — MATLAB
- Computer and Network Security
  - Cryptography
  - System Security
  - Network Security Principles
  - Application Level Security
- Database Design
  - Relational Model
  - Logical Database Design
  - Query Languages
  - Optimization
  - Concurrency Control
  - Transaction Management
  - Log Based Crash Recovery
- Software Engineering
  - Version Control
  - UML
  - Methodologies
  - Real Client

Mathematics
- Calculus
  - I.
  - II.
  - III.
- Applied Probability and Statistics
- Linear Algebra
- Differential Equations for Engineers
- Introduction to Statistical Computing with SAS
- Applications of Linear Algebra
- Introduction to Number Theory
- Euclidean and Non-Euclidean Geometries

Languages
- English
  - Verbal
  - Written
- Hungarian
  - Verbal
  - Written

Methodologies
- Project Management
  - Agile
  - Waterfall
- Data Warehouse
  - Kimball
  - Inmon
- The Life in Startups
- Pareto Principle
- Prefer Planning Over Firefighting

Tools
- Version Control
  - Subversion
  - CVS
  - Git
- Documentation
  - Wiki
  - Screen Cast
- Presentation
  - Prezi.com
  - XMind
- Design
  - ER-Studio
  - MySQL Workbench
  - UML
- ETL
  - DataStage
  - Pentaho
  - Talend
  - Informatica
- Databases
  - Oracle
  - MySQL
  - Greenplum
- Reporting
  - MSTR
    - Reporting Essentials
    - Project Design
    - Intelligence Server Administration
    - Analytics for Architect Developers
  - Pentaho
    - Data Integration Fundamentals
    - Installation and Administration
    - Report Design
- Project Management
  - Jira
  - Agilefant
- Data Quality
  - Talend Open Studio
- Software Development
  - IntelliJ IDEA
  - Eclipse
- Programming Languages
  - Java
  - SQL
  - PL/SQL
  - Bash
  - JavaScript
  - Ruby
  - HTML
  - XML
  - Python
- Content Management
  - Joomla
- Operating Systems
  - Linux
  - Unix
  - Mac

Practical Experiences

Employee
- MicroStrategy (MSTR) — Learn MSTR Product
- Interactive Voice Response (IVR)
- Angel.com
  - Java Developer
    - J2EE
      - Java Beans
      - Web Services
      - JDBC
    - Ant
    - JUnit
    - JBoss
- Data Warehouse Engineer
  - Requirements Gathering
  - Data Discovery
  - Design
    - Data Model
    - Database
    - Data Quality
    - ETL
  - Implementation — ETL
  - Support
    - Performance
      - Database
      - ETL
    - Quality

Independent consultant
- Data Warehouse Consultant
  - Remote Work Overseas
  - Requirements Gathering
  - Evaluate Solutions
  - Recommend Best Practices
  - Implement Bare Bone ETL
    - Automatic Setup
    - Configurable Quality Checks
    - Automated Metadata Collection
- Web Developer
  - www.permaforum.hu
  - www.pontfoto.hu
  - www.szentesiwaldorf.hu
- Data Migration Specialist
  - Migrated a complex Oracle/Informatica stack to Greenplum/Talend
  - Reworked stored procedures and views to ETL jobs
  - Investigated the logic in undocumented messy code

Personal projects
- Web Scraping