Lecture Content

• Visual Data Science
  • Theoretical concepts of data visualisation and HCI
  • Usage of visualisation for data science applications
Visual Data Science

• VU, 2 h, 3 ECTS
  • Lecture (10 lecture units)
  • Lab part (two parts, first part mandatory)
  • Language: English
Dates

- **02.10.2019** Introduction „Vorbesprechung“
- **09.10.2019** Lecture Introduction to Data Visualisation
- **16.10.2019** Lecture Advanced Visualisation Techniques
- **23.10.2019** -
- **30.10.2019** Lecture AI in Visualisation
- **06.11.2019** Lecture Introduction to Human-Computer-Interaction
- **13.11.2019** Lecture Introduction to Visual Data Science
- **20.11.2019** Lecture Usage of Charts and Plots
- **27.11.2019** Lecture Trust in Visualisation
- **04.12.2019** Lecture Visual Data Science in Practice
- **11.12.2019** Lecture Applications & Libraries, Part 1
- **18.12.2019** Lecture Applications & Libraries, Part 2
Dates

- **02.10.2019** Introduction „Vorbesprechung“
- **09.10.2019** Lecture Introduction to Data Visualisation
- **16.10.2019** Lecture Advanced Visualisation Techniques
- **23.10.2019** - 30.10.2019 Lecture AI in Visualisation
- **06.11.2019** Lecture Introduction to Human-Computer-Interaction
- **13.11.2019** Lecture Introduction to Visual Data Science
- **20.11.2019** Lecture Usage of Charts and Plots
- **27.11.2019** Lecture Trust in Visualisation
- **04.12.2019** Lecture Visual Data Science in Practice
- **11.12.2019** Lecture Applications & Libraries, Part 1
- **18.12.2019** Lecture Applications & Libraries, Part 2
Dates

- **19.11.2019**  Deadline lab part 1
- **14.01.2020**  Deadline lab part 2 (if P1 selected)
- **15.01.2020**  Final presentations (mandatory, if P1 selected)
- **22.01.2020**  Final presentations (mandatory, if P1 selected)
- **29.01.2020**  Final presentations (mandatory, if P1 selected)
- **20.01.2020 - 31.01.2020**  Exams (if P2 selected)
Grading

• Two grading packages

<table>
<thead>
<tr>
<th>P1: Practical Implementation</th>
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<tr>
<td>Lab part 1</td>
<td>20 points</td>
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<tr>
<td>Lab part 2</td>
<td>30 points</td>
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<tr>
<td>Lecture attendance (4 points per lecture, maximum of 5 lectures can be used for grading)</td>
<td>20 points</td>
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<tr>
<td>Final presentation</td>
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<table>
<thead>
<tr>
<th>P2: Theory and Exam</th>
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<tr>
<td>Lab part 1</td>
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<tr>
<td>Lecture attendance (4 points per lecture, maximum of 7 lectures can be used for grading)</td>
<td>28 points</td>
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<td>Exam</td>
<td>52 points</td>
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Grades

• Points are issued for different parts of the VU according to the selected grading package

<table>
<thead>
<tr>
<th>Grade 1 („Sehr Gut“)</th>
<th>&gt; 85 points</th>
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<tbody>
<tr>
<td>Grade 2 („Gut“)</td>
<td>&gt; 75 points</td>
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<tr>
<td>Grade 3 („Befriedigend“)</td>
<td>&gt; 62 points</td>
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<tr>
<td>Grade 4 („Genügend“)</td>
<td>&gt; 50 points</td>
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<td>Grade 5 („Nicht Genügend“)</td>
<td>&lt;= 50 points</td>
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Lab

• Consists of two parts
  • Part 1: 02.10.2019 - 19.11.2019
  • Part 2: 20.11.2019 - 14.01.2020
• Part 1 is mandatory for both grading packages
Lab – Part 1

- Study difference between statistical analysis and visual analysis
- Dataset provided
- Solve three tasks
  - Clustering
  - Correlation
  - Comparison
- Write report (at least 3 A4 pages about discovered differences)
- Submit report (19.11.2019)

Submitting the first part means that grade will be issued.
Lab – Part 1

- Dataset: USDA Food Nutrition Dataset
Lab – Part 1

• Three tasks:
  • Find clusters based two nutritions
  • Find correlations between nutritions
  • Compare different groups of food

• Part 1 starts today
Lab – Part 2

- Part 2 starts on **19.11.2019**
- Datasets given, but also possible to use own dataset
- Decide between 2 tasks
  - Dashboard (data analysis and presentation)
  - Application comparison (create the same charts with different tools)
- Write report (at least 3 A4 pages) to document results and explain findings
- Submit report **(until 14.01.2020)**
- Present results **(15./22./29.01.2020)**
Organisation

• Please register for course in **TUWEL**
  • [https://tuwel.tuwien.ac.at/course/view.php?id=19159](https://tuwel.tuwien.ac.at/course/view.php?id=19159)
  • Until **November 19th, 2019**

• Submission of lab results will be done via **TUWEL**

• Further information can be found at the **course website** ([https://www.cg.tuwien.ac.at/courses/VisDataScience/](https://www.cg.tuwien.ac.at/courses/VisDataScience/))
Organisation

• Any questions?

-> TUWEL forum

-> Email: jschmidt@cg.tuwien.ac.at
References
