강의계획서

<table>
<tr><td rowspan="4">교과목
정 보</td><td>교과목명</td><td colspan="2">인공지능
□ 2학점 ■ 3학점</td><td>수업년도(학기)</td><td colspan="2">2017 (2학기)</td></tr>
<tr><td>소 속</td><td colspan="2">소프트웨어학부</td><td>성 명</td><td colspan="2">이상근</td></tr>
<tr><td>강의요일</td><td colspan="2">수, 금</td><td>강의시간</td><td colspan="2">수 9:30
금 10:30</td></tr>
<tr><td>강의장소</td><td colspan="5">1공학관 509호</td></tr>
<tr><td>교과목
개 요</td><td colspan="6">In this lecture, we study machine learning, which is a central part of the artificial intelligence study nowdays, at an introductory level. We will discuss fundamental ideas in machine learnnig, such as perceptron, neural networks, logistic regression, SVM, kernelization, decision trees, k-NN, PCA, and clutering. We also study how to use these techniques in Python. Some practical problems on sentiment and image analysis problems will be discussed as well.</td></tr>
<tr><td>수업목표</td><td colspan="6">We focus on understanidng fundamental concepts in machine learning, applying the basic techniques on data using the Python programming language. Instead of mathematical and statsitical understandding of machine learning, we focus on conceptual understanding of the concepts together with learning by experience applying machine learning using Python.</td></tr>
<tr><td rowspan="2">교 재</td><td colspan="2">교재명</td><td colspan="2">저자</td><td colspan="2">출판사</td></tr>
<tr><td colspan="2">Python Machine Learning</td><td colspan="2">Sebastian Raschka</td><td colspan="2">PACKT Publishing</td></tr>
<tr><td rowspan="2">평가방법</td><td>중간(%)</td><td>기말(%)</td><td>출석(%)</td><td>과제(%)</td><td>수업참여도(%)</td><td>기타(%)</td></tr>
<tr><td>30</td><td>40</td><td>10</td><td>20</td><td></td><td></td></tr>
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주 별 강 의 계 획

주차	Contents	Exam & 과제
Week 1	Learning from data	
Week 2	Perceptron	
Week 3	Scikit-learn 1	
Week 4	Scikit-learn 2	
Week 5	Data preprocessing	
Week 6	Principal component analysis	
Week 7	LDA, kernel PCA	
Week 8		Mid-term exam
Week 9	Model evaluation and hyperparameter tuning	
Week 10	Ensemble learning	
Week 11	Setiment analysis	
Week 12	Regression	
Week 13	Clustering	
Week 14	Image recognition	
Week 15		Final exam