Shallow Meta-Learning Strategies & Applications

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Ozgur Taylan Turan

Miguel's Departure

+/-

Positives

- Reduced stress
- Reduced internal questioning
- Increased mental and physical health

+/-

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Negatives

- Reformulation of the project
- Concluding the on going works
- Lingering ethical issues

WORK

Past Work

When MAML Learns Quick Does It Generalize Well? [BNAIC/BeNeLearn]

- First paper
- Experienced the full cycle

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Cooperative Data-Driven Modeling [ArXiv/ICLR/CMJ]

- First collaboration
- Not really satisfied

Side Projects

Civil Engineering Connections

- MSc student (Gaussian Process)
- Paper?

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- MSc student (Gaussian Process)
- Paper?

UQ with Yuko

- Material Science UQ application
- Paper?

Side Projects

Own ML Library in C++

- Fast learning curve generation
- Data and code management

Side Projects

Own ML Library in C++
- Fast learning curve generation
- Data and code management

Meta-Learning material science problems
- Low-hanging fruit
- Paper?

Future Work

Semi-Parameter Kernel Ridge

- Second Paper -> Application on Learning Curves (with Tom)
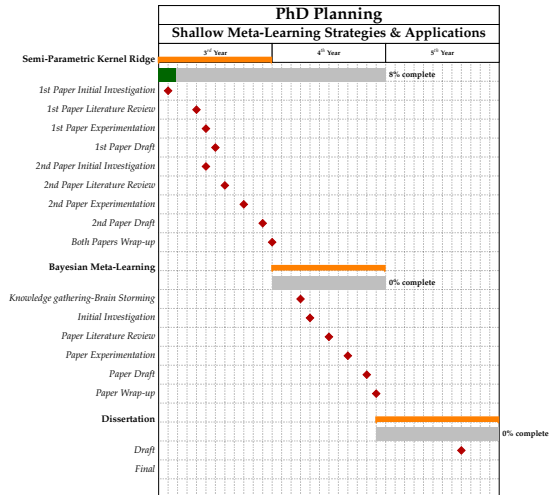- Third Paper -> Kernel Learning/Construction

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Bayesian Shallow Meta-Learning

- Final Paper

Planning Project

Planning-Transferable Skills

Lecture	Credit	Status	Lecture	Credit	Status
Start-A	0.5	+	Speedreading	1.5	+
Start-B	1.0	+	Time management	0.5	+
Start-C	0.5	+	Poster Day	1.0	+
Mental Fitness	1.0	+	Teaching train...	1.0	+
Standing up for yourself	1.0	+	Dutch	3.0	+
Analytical storytelling	2.5	+	Data Management	1.5	-
Work smarter stress less	2.0	+	Looking for work in NL	1.0	-

Credits :15.5/18 (Needed Credits:15)

Planning-Discipline Related Skills

Lecture	Credit	Status
Machine Learning-I	5.0	+
Deep Learning	5.0	+
Summer School	5.0	-

Credits : 10/15 (Needed Credits:15)

- Will try to go to ProbAI/ELLIS Summer School on Prob. ML (either this year or next)!

Planning-Research Related Skills

Lecture	Credit	Status
Paper Review	1.0	Miguel(+/-)?
Writing Conference Paper	1.0	BNAIC(+/-)?
Writing Journal Article	3.0	Mechanics(+/-)?
Supervise MSc	4.0	Civil Engineering(+/-)?
Supervise BSc	4.0	2xCapstone/2xBScProject(+/-)?
Exam Prep.	4.0	Helping(+/-)?
Lab Prep.	4.0	Helping(+/-)?
Course	4.0	Helping(+/-)?

Credits : ?/23 (Needed Credits:15)

- A bit confused about these!

Reflection

Self Reflection

- Departure of Miguel
- Personal life struggles
- But, tones of relief and comfort at working environment
- COVID effects are wearing-off

Self Reflection

Getting Confident

- Working with others
- Being part of a group
- Scientific Knowledge
- Presenting, talking, taking responsibility
- Research skills

Self Reflection

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Needs more attention

- Teaching, supervision, coaching
- Self-supervision
- Writing

Supervision Reflection

Good Sides

- Tones of ideas and feedback
- Lots of freedom
- Environment facilitating creativity

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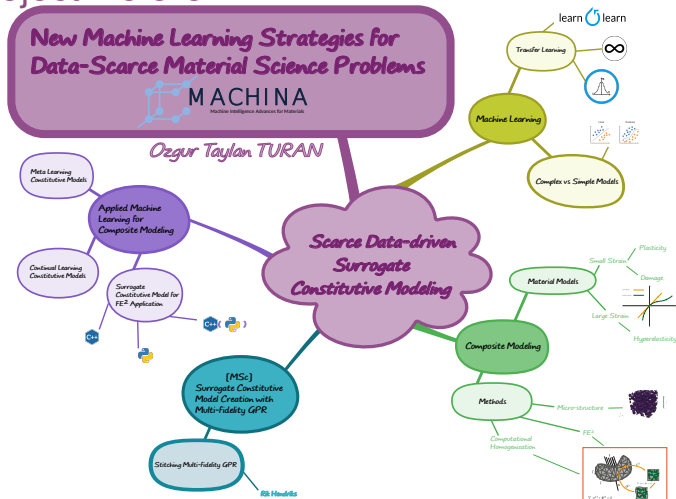- Environment facilitating creativity

Bad Sides

- Tones of ideas and feedback

Carrier Perspectives

- Would like to stay in academia!
- A bit scared of not finding a position!
- Trying out an internship/visit industry/academia for a year after getting a Dutch Passport!

Thanks!

View of the Project-Before

View of the Project-After