Hüseyin Furkan **Bozkurt**

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Education

- **Albert-Ludwigs-University of Freiburg** — Freiburg im Breisgau, Germany
  Master of Science in Computer Science; GPA: 3.55/4.00 — *Sept. 2017 – Present*
  - **Relevant Coursework:** Image Processing and Computer Graphics, Computer Vision, Mobile Robotics, Robot Mapping, Planning in Artificial Intelligence, Machine Learning, Reinforcement Learning.
  - **Thesis, *in progress* (Advised by Prof. Frank Hutter)**
- **Bilkent University** — Ankara, Turkey
  Bachelor of Science in Electrical and Electronics Engineering; GPA: 3.49/4.00 — *Sept. 2012 – June 2017*
  - **Relevant Coursework:** Introduction to Machine Learning, Statistical Learning and Data Analytics, Computational Neuroscience, Game Theory.
  - **Thesis, Autonomous Household Robot (Advised by Prof. Orhan Arıkan):** Funded by Arçelik and TUBITAK. Implemented an embedded robot with the ability to understand voice commands, move to a desired location in the house while being aware of its position and surroundings, gather environmental data and send the acquired data to the user over a Bluetooth connection to a mobile phone.

Experience

- **Albert-Ludwigs-University of Freiburg** — Freiburg im Breisgau, Germany
  Graduate Research Assistant in Machine Learning Lab — *Jan. 2018 - Present*
  - **SAT/AST Solvers:** Worked on various SAT/AST solvers written in C/C++ such as MiniSat and Clingo. Maintained their compatibility and efficiency. Implemented techniques to use these solvers as OpenAI Gym environments in Reinforcement Learning algorithms.
  - **Parameter Control:** Researched efficient ways of using Reinforcement Learning agents to control certain parameters of these solvers. Benchmarked these techniques against static versions.
- **Robert Bosch GmbH** — Renningen, Germany
  Graduate Research Intern in Rich and Explainable Deep Learning Group — *Sept. 2018 - Feb. 2019*
  - **Software Engineering:** Developed runners to execute training scripts on various job schedulers and clusters.
  - **Neural Architecture Search:** Implemented several NAS algorithms. Researched feasible ways to apply NAS to Semantic Segmentation tasks via novel efficient recursive search strategies and Evolutionary Algorithms based optimizers. Benchmarked them on autonomous driving datasets such as CityScapes.
- **ASELSAN Inc.** — Ankara, Turkey
  Summer Intern — *June 2016 - July 2016*
  - **Software Engineering:** Replaced an existing MATLAB program which is responsible for taking user input from a GUI which is operated by a pilot and converting it to xml format with a new Java program.
- **KAREL Inc.** — Ankara, Turkey
  Summer Intern — *July 2015 - Aug. 2015*
  - **Software Engineering:** Modified software of a Turnigy 9x RF controller for company's custom quadcopter.

Publications

- Biedenkapp, A. and **Bozkurt, H. F.** and Hutter, F. and Lindauer, M. "Towards White-box Benchmarks for Algorithm Control", International Joint Conferences on Artificial Intelligence (IJCAI) 2019 Data Science Meets Optimisation (DSO) Workshop. (To appear)

Poster Presentations

- A. Biedenkapp, **H. F. Bozkurt**, M. Lindauer, F. Hutter. "Challenges in Algorithm Control", COnfiguration and SElection of ALgorithms (COSEAL) Workshop, Paris, France, Sept. 2018. (Presented)

Honors & Awards

- **Scholarship of the Turkish Prime Ministry (2012 - 2017):** Awarded monthly stipend during the BSc program.
- **Bilkent University Comprehensive Scholarship (2012 - 2017):** Full tuition waiver & stipend during the BSc program.
- **Bilkent University High Honor Certificates (2012 - 2017):** Awarded for students with GPAs higher than 3.50.
- **101st Place in Graduate Education Entrance Exam - Quantitative (2016):** Among 200 000 people.
- **75th Place in Nationwide University Entrance Exam - Quantitative (2012):** Among 1 800 000 people.

Projects

- **Deep Scheduler:** Researched Reinforcement Learning algorithms to predict which one of the given finite number of hyperparameter configurations of a black box machine learning algorithm will perform better by only observing their learning curves.
- **DDPG+HER:** Implemented DDPG using HER from scratch and benchmarked against original version.
- **Classification on 2016 US Elections:** Predicted 2016 US Election results for each city in US using many classification techniques written in MATLAB.
- **Regression on Daily Bike Rental Demand:** Predicted hourly bike usage in the city of New York using many regression techniques written in MATLAB.
- **Visual Object Recognition:** Implemented multi-voxel pattern analysis methods to decode the category of visual stimuli viewed by a human subject based on their recorded brain activity.

Extracurricular Activities

- **Student Volunteer at Going Global 2019 (British Council, 2019):** Assisted more than 1000 visitors about event's official Android and iOS application, took part in registration and helped orginizing university campus tours.
- **Intercultural Training (Studierendenwerk Freiburg-Schwarzwald, 2017):** Took courses on Intercultural sensitization, intercultural communication and interactive intercultural activities.
- **Communication Skills Courses (Career Street, 2016):** Took courses on Oratory, Diction, Professional Communication and Micro Body Language.