

houskape@gmail.com

## **FDUCATION**

## MSC. IN COMPUTER SCIENCE

Charles University | Prague Sep 2017 - Feb 2021 Artificial Intelligence/Machine learning GPA: 1.06 (1-4 | 1 is best) MSc. thesis: @Projects

## **BSC. IN COMPUTER SCIENCE**

Charles University | Prague Sep 2014 - Sep 2017 General computer science GPA: 1.15 (1-4 | 1 is best) BSc. thesis: @iolevel

## LINKS

Github://petrroll LinkedIn://houskape Website://petrroll.cz Devblog://devblog.petrroll.cz Email://houskape@gmail.com

# **SKILLS**

### Knowledgeable

C# • Python • MSIL

#### **PROFICIENT**

C • TypeScript • Go • TensorFlow

### **FAMILIAR**

C++ • x86 Assembler • Java • CUDA • PHP • F# • SQL • Haskell • Prolog • TypeScript • Bash

#### **TECHNOLOGIES USED**

DPDK • MPI • Aurelia • prestoSQL • Thrift • Roslyn platform • Unity •

Docker • K8s • ...

### COMPUTER SCIENCE

learning • Linear algebra • Software architecture • Parallel programming •  $\lambda$ -calculus • Logic programming • Evolutionary algos • Linear programming • Computers and Cognitive Sciences • ...

Approximation algos • ML • Deep

# LANGUAGES

Czech - Native proficiency English - Full professional proficiency German - Elementary proficiency

# HOBBIES

Hiking • Cycling • Curling • Social sciences • Theatre

## **EXPERIENCE**

## MICROSOFT | SOFTWARE ENGINEER

Dec 2020 - now | Prague, Czechia

- Asynchronous service for delivering messages from cloud to clients.
- Service (.NET), clients integration (Cpp + wrappers).

## **CTM - CENTER FOR TALENTED MINDS** | INSTRUCTOR

Sep 2020 - now | Prague, Czechia

• Online programming course mentor for high-school children.

### **UBER** | Software Engineer Intern

Nov 2019 - Feb 2020 | Aarhus, Dennmark

- Insight into ops. metrics: data visualisation, investigation, etc.
- Research into vertical scaling of container based services.

## MICROSOFT | SOFTWARE ENGINEER INTERN

July - Sep 2019 | Redmond, USA

- DevDiv: Developer tools for managed languages.
- UX & architecture sol. for discoverability issues of Roslyn refactorings.

July - Sep 2018 | Redmond, USA

- Design & impl. of a feature within DPDK based C app.
- Development of socket IPC between C and .NetCore apps (Thrift).

### **IOLEVEL** | Part time software developer

Mar 2017 - Jun 2018 | Prague

- Developement of Peachpie compiler platform (PHP to .NET compiler).
- Github:// peachpiecompiler/peachpie | Website:// peachpie.io
- Design & impl. of lowering generator methods as part of bachelor thesis.
- Thesis text Github:// petrroll/bachelor-thesis

# **PROJECTS**

### DL ARCHS. FOR ANALYZING NEURAL DATA I MSc. THESIS

- Application of deep-learning architectures to small noisy data-sets.
- Modeling early visual processing in mammalian brain.
- Code Github:// petrroll/msc-neuro, Text Github:// petrroll/msc-thesis

#### MINIRTS | MINIMALISTIC MASSIVE RTS

- Large scale minimalistic RTS.
- High performance data oriented arch. based on Unity jobs system.

#### **GND-AI TOOLS** | HCI tools for theatre performance

- Set of TTS, STT, text generation scripts using 3rd party services.
- Github://petrroll/gnd-ai-tools

#### KLAS STRUGGLE | WHEAT GENERATOR ART/GAME IN UNITY

- Persistent field full of user-generated individuals backed by firebase.
- Github://petrroll/klas-struggle

2015 - 2018 Kasiopea

# AWARDS & VOLUNTEERING

2018	1st / 19	Avast Cyber Adventure team (5).
2018	559th/4856	Google hash Code 2018.
2017	1st / 10	Trend Micro CTF Prague team (3).
2016	70th/1054	2nd best Czech team in Google hash Code 2016.
2014 - 2017	KSP	CS seminar for high school students.

Coding competition for high school students.