Sounak Bhattacharya

Senior Imaging Software Engineer

linkedin.com/in/sounak-bhattacharya-b67718139/
github.com/bsounak

sounak.bhattacharya@gmail.com
+358 44 263 7571

Summary

I am a software engineer with 7 years of experience in the field of Machine Vision/Computer Vision and Industrial Robotics. I am also a passionate coder who loves writing usable, maintainable and well-designed software. I like to work in challenging roles. I am an excellent team player with great communication skills. I also love to work independently and solve problems on my own when the opportunity arises.

Technical Expertise

Programming Languages:	Python, C, C++, Objective C, MATLAB
Domain Knowledge:	Image Processing, Image Analysis, Machine/Computer Vision, Augmented Reality, Virtual Reality, Signal Processing, Machine Learning
Software Tools:	Vim, Microsoft Visual Studio Code, Pycharm, Git, Bash, Jenkins, LaTeX
Operating Systems:	macOS, Ubuntu, Debian, Windows
Project Management Tools:	Atlassian Jira
Expertise:	Image Processing, Machine/Computer Vision, Robotics, Test Automation, Cross Platform Software Development, Data Science
Libraries:	OpenCV, Numpy, SciPy, Pandas, Matplotlib, scikit-learn, PyInstaller, Halcon

Work Experience

OptoFidelity Oy. (Senior Imaging Engineer), August 2021 - Present

- Machine Vision Software Lead
- Image Analysis and Algorithms for AR/VR
- Concepting, Prototyping and Delivering test solutions to customers

OptoFidelity Oy. (Imaging Engineer), October 2017 - July 2021

- Imaging algorithms for Augmented Reality / Virtual Reality Head Mounted Display testing
- Imaging algorithms for Display Quality Inspection
- Industrial camera calibration, Frame grabber configuration
- Precise light control

- Machine Vision algorithms
- Robot control / Test station software
- Software packaging and release
- Interacting with third party vendors and customers for successful delivery, installation and support

Tampere University of Technology (Research Assistant), September 2014 - October 2017

- Working with 3D point clouds generated from Lidar data and feature extraction from these large scale 3D datasets.
- Machine Learning: classification of glass and glass like surfaces.

Education

Tampere University of Technology (Master of Science), 2013 -

– Major in Signal Processing. Minor in Information Technology.
– Thesis ongoing related to Face-Swapping using GANs. Expected graduation in Dec-2021
– GPA: 4.2/5

West Bengal University of Technology (Bachelor of Technology), 2008-2012

– Major in Computer Science
– Cumulative GPA: 7.39/10

Publications

– Bhattacharya S., Fan L., Babahajiani P., Gabbouj M. (2016) Global Scale Integral Volumes. In: Computer Vision – ECCV 2016 Workshops. ECCV 2016.

Patents

– Method and apparatus for processing signal data - US20160232420A1

Interests

Music, Cinema, Badminton, Reading, Running.

References

Ranjeeth Shetty
Staff Software Engineer
Xiaomi Finland Oy.
ranjeeth.shetty@gmail.com

Joni Piililä
Chief Operating Officer (COO)
OptoFidelity Oy.
joni.piilila@optofidelity.com