Jyotirmay Senapati

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senapati.jyotirmay@gmail.com — jyotirmay123 — jyotirmay-senapati-30615421 — jyotirmay9
3861545/jyotirmay — www.jyotirmays.com — +49-176-4711-8982 — Munich, Germany

Programming Skills (Full-Stack)

- **Proficient**: Angular/Ionic/Node, Flask/Python, MySQL, HTML/CSS, Docker, Agile/Kanban
- **Intermediate**: Git, Confluence/Jira, CI/CD, PHP, Azure, AWS EC2/Lambda/S3, SQLite/MongoDB

Experience (4 years)

- **AI-Med** — Munich, Germany
  Assistant Research Scientist — *Aug 2020 - Now*
  - **Data Pre-Processing**: Built a robust multi-data data pre-processing pipeline for whole-body MRI scans. Worked best for UKB, KORA & NAKO MRI datasets.
  - **Organ Segmentation**: Using state of the art Deep Learning models to build and improve abdomen segmentation for various small to large organs.
- **Nasscom India** — Delhi, India
  Freelancer — *May 2020 - Aug 2020*
  - **Yes Nancy**: A Covid19 related advertising platform for SME's; admin & common platform built with **Java Spring Boot** & deployed on **Azure** in a week time. It gets around 1000 hits daily. **CI/CD** setup, added lazy loading & security changes.
  - **Whatsapp Business Platform**: Built a marketing platform using **Node** & **Whatsapp APIs** using Gupshup
- **AI-Med** — Munich, Germany
  Master Thesis and Work Student — *Apr 2019 - June 2020*
  - **quicknat.ai-med.de**: An AI app built with **Python/Flask/Docker** to visualise brain/wholebody MRI scans and segmentations. Integrated **AMI-js** for better segmentation visualisation with addition of 3-view display, view aggregation, report generation, uncertainty estimation, age prediction, etc. Deployed on **AWS** using **EC2/S3/Lambda** services.
- **Disney Research Lab** — Zurich, Switzerland
  Machine Learning Research Intern — *Nov 2018 - Feb 2019*
  - **Multi-Modal Audience Understanding**: Developed cry & yawn data-set for expressions detection. Used **Keras/Python** to develop valence prediction network using CNN-Ensemble method on Darn-Good-Yarn dataset.
- **Pega System** — Bangalore, India
  Technical Solution Engineer — *Mar 2016 - Mar 2017*
  - **Pega Frontend Support**: Cleared **Pega-CSA certification**. Used **JS/HTML5/CSS3** to solve core Pega issues raised by clients. Also a part of 'Pega recruitment' and 'UI technology training' team. Trained 5 new joinee.
- **Tata Consultancy Services Limited** — Bangalore, India
  System engineer — *Mar 2014 - Mar 2016*
  - **Q-Team**: A hybrid app built for various usage of Qualcomm and TCS internal employees using **Angular 1.0**.
  - **Qualcomm Learning Management System (LearnIt)**: Developed user, admin module & various CRON task using **PHP, jQuery & MySQL**. Managed data consistency for the **200,000+ records** across **500 tables** in the application. Lead a team of 3 people for unit testing. Awarded **TCS GEMS award** for the good coding skills among 500 others.

Education (Masters)

- **Technical University of Munich** — Munich, Germany
  Master of Science in Informatik; (GPA: 2.1, Best: 1.0) — *2017 – 2020*
  - **Bayesian Deep Learning in Medical Image Segmentation (MICCAI-MLMI2020 WorkShop Accepted)**: Developed multi way of calculating model uncertainty on KORA, UK-Biobank and NAKO dataset. Used **PyTorch, R, Scikit, NiBabel, Numpy, Matplotlib, etc**. Statistically analyse uncertainty effect of liver/spleen segmentation on patients' diabetes state.
  - **Cracke, HackaTUM-2019 (Allianz challenge: 1st prize out of 37 participants)**: Developed a mobile app to detect cracks on metal(*No Deep-Learning, only Image Analysis*) with report generation within 24 hours using **Ionic & Angular**.
  - **i-Graph**: Used **RASA-NLU** for human language understanding and querying documents for relevant output.
  - **Expression Prediction**: A course project to implement human facial expression detection regularized by facenet and motivated by FN2EN (Facenet to Expression Net).Used **PyTorch, Google Cloud & Jupyter Notebook**.
- **Gandhi Institute of Engineering and Technology, BPUT** — Gunupur, India
  Bachelor of Technology in Electronics and Communication; (GPA: 8.27, Best: 10.0) — *2009 – 2013*
  - **Thesis**: Automated railway track crack detection from camera sensor inputs built into a automotive robot.