

EDUCATION

M.Eng ECE	University of Waterloo	Sep 2022 – Dec 2023
• Artificial Intelligence and Machine Learning		
B.Tech Computer Science	Lovely Professional University	Aug 2014 – Jun 2018
• Data Structures, Algorithms, Networks, Operating Systems, Machine Learning, Internet of Things		

SKILLS

- **Languages:** Python, JAVA, C++, C, Haxe
- **Libraries:** TensorFlow, Keras, PyTorch, AutoGluon, NLTK, Scikit-learn, VaderSentiment
- **Databases:** MySQL, Postgres, Redis, BigData, GraphQL
- **Stack & Cloud:** NLP, Forecasting, Generative AI, Computer Vision, AWS, Google Cloud
- **Tools:** GPT, Docker, DVC, Github, Jira, Jenkins, Confluence, CI/CD

EMPLOYMENT

Machine Learning Associate	QuickPlay & Vector Institute	Dec 2022 – May 2023
Technology stack: Python, PyTorch, TensorFlow, Google Cloud, BigData		
• Formulized Quality of Experience (QoE) accurately using 7+ different attributes.		
• Analysed 4 different methodologies and techniques to calculate and forecast QoE.		
• Data Analysis of streaming data to create Forecasting model with an accuracy of 70%.		
• Machine Learning models to predict QoE for next 30 minutes.		
Software Engineer	Xperi Corporation	Nov 2019 – Aug 2022
Technology stack: Python, NLP, AWS, Docker, Redis, C, CI/CD		
• Core algorithms for Advanced Search & Recommendation for 3 products.		
• Implemented 10+ new features for conversation product.		
• Data publish pipeline integration and development for 15+ customers.		
• Machine Learning models for 10+ languages.		
Software Engineer	TiVo Corporation	Jul 2018 – Nov 2019
Technology stack: Python, JAVA, C++, Haxe, Javascript, MySQL		
• TiVo app development on Android, iOS, and 2 other platforms.		
• Improved translation delivery by reducing delivery time by 75%.		
• HDR, VOD, SOCU and SCTE-27 subtitle feature for TiVo STBs.		
• Extraction and analysis of STB and TiVo app logs of 10+ GB size.		
Software Engineer Intern	TiVo Corporation	Jul 2017 – Jun 2018
Technology stack: Python, JAVA, C++, JavaScript, iOS		
• 5+ features development for TiVo iOS app.		
• Improved code to reduce app crash rate from 12% to 4%.		
• HDMI-CEC feature development for TiVo STBs in 1 week.		

PATENTS

- **Content Recommendations using a Trained model.** [US11551086B2](#)
- **Comprehensions in Translation based on Context-based references.** [US20220100970A1](#)
- **Converting an input Content item based on Contexts.** [US20220171939A1](#)

PROJECTS

- **Semantic segmentation of Field Anomalies** | Deeplab, ResNet, PyTorch: Segmenting 9 different field anomalies from field dataset using semantic segmentation.
- **Finding exoplanets using Microlensing** | Keras, Tensorflow, CNN: Labelling exoplanets in each image set using principles of Microlensing and CNN.
- **Sentiment Analysis & Feedback** | Tensorflow, Scikit-Learn, Sklearn, VaderSentiment: Recommending content and ranking search based on user sentiment in multiple languages.
- **Child Detection using Voice** | Keras, Tensorlow, Scikit-learn: Child voice detection in multiple languages to filter search and recommendation.
- **Seller Management App** | Angular, MongoDB, Nodejs: Managing and recommending shopkeepers about product.
- **Tivo Coins** | Haxe, C++, Java: Creating system to earn and redeem coins for premium VOD content.

AWARDS & ACHIEVEMENTS

- Nominated for Vector AI scholarship.
- High-5 Awards at Xperi for exemplary performance.
- Awarded 4000 USD by TiVo under innovation awards for patent applications.
- Runner up at TiVo hackathon for creating a prototype of TiVo coins.
- Gold medallist at International Olympiad of Mathematics.