Akathian SANTHAKUMAR
4th-year Computer Science and Neuroscience, Deep Learning Interest

akathian.com
 github.com/Akathian   in linkedin.com/in/akathian
 (647)-882-7285   @ akathian.santhakumar@mail.utoronto.ca

KEY COMPETENCIES

Languages	**Python**, **Node.js/JavaScript**, **Java**, **TypeScript**, **Matlab**, C, Shell Scripting, Haskell
Artificial Intelligence	**Document AI** (Neural Networks, LDA), **Image AI** (RBF), **Classification** (Naive Bayes, KNN, Random Forest), **Clustering** (K-Means, GMM), **Regression**, **Dimensionality Reduction** (PCA)
Developing Experience	**Back-End** (Node.js, Flask), **Database** (MySQL, NoSQL), **Front-End** (Angular, React.js), **IoT** (Raspberry Pi Edge Computing), **QA** (JUnit, Mocha/Chai, Cypress), **UI/UX Design** (Angular, AWS Sumerian), **Infrastructure** (Heroku, AWS, Google Firebase)
Cloud Tools	**AWS** (SageMaker, Rekognition, Comprehend, Lex, Elastic Beanstalk, SQS, SNS, EC2, CodePipeline, S3, Sumerian, CloudWatch, RDS), **Google Firebase** (Hosting, Auth, Realtime Database)

EXPERIENCE

January 2021 – Present | Software Developer, BIORENDER, Toronto, ON

Worked on the platform team focusing on features, APIs and the database before moving to the Growth & Acceleration Engineering team to focus on user recommendations, running A/B tests and analyzing data.
> Coded and A/B tested a scoring function to match over 6k users to field specific templates to investigate whether recommending templates to a user would increase their usage
> Engineered, trained and tested document classifying and clustering algorithms to recommend templates most similar to the user's illustrations
> Implemented the Flagsmith A/B testing platform, enabling over 25 developers and project managers to test any number of features risk-free, and investigate whether the feature improves metrics

`React.js` `Node.js` `Python` `numpy` `scikit-learn` `Tensorflow` `MongoDB` `AWS` `Heroku` `TypeScript` `Git`

January 2019 – Present | Web Developer & Tutor, THAYAHAN ARTS SCHOOL, Scarborough, ON

Build and maintain the business' website for 100s of monthly visitors and tutor students
> Deployed a business website using Angular and Firebase with around 10 reusable components
> Teach 5 students 1:1 the fundamentals of programming and french while keeping them engaged and interested in the lessons

`Python` `French` `Math` `Angular CLI` `Google Firebase` `HTML` `CSS` `TypeScript` `Git`

September 2019 – April 2020 | Innovation Engineer (R&D Application Developer), CIBC, Toronto, ON

One of seven members of an agile R&D team following SDLC practices prototyping an interactive digital assistant for CIBC corporate and client use cases.
> Developed a queueing system using Node.js to determine event processing order, capable of handling over 1k events in a few milliseconds
> Built a 3-input neural network predicting user's overall sentiment based on their gestures, facial expression and what they say so that the assistant can change how she answers the user's questions
> Performed research on finding technologies for solutioning the assistant's learning model, UI controls, microphone, and camera set-ups via IoT and AI

`Node.js` `Python (AI & Edge Computing)` `AWS` `Agile` `Git (GitFlow)` `MySQL` `Mocha/Chai` `React.js` `IoT` `Jira`

PROJECTS

FREELANCE WEB DEVELOPER   2020 - PRESENT

https://ovvisuals.com/, https://becomestrongertogether.ca/
Creating responsive and engaging blogging, e-commerce and brochure websites for clients
> Built a fully fledged e-commerce web-app for OVVisuals (arts), allowing paypal payments and user login
> Created a blog and forum website for a mental health awareness organization, allowing for user to seek help or share their stories anonymously

`Angular CLI` `Google Firebase` `TypeScript` `HTML` `SCSS` `JQuery` `Bootstrap` `Git` `NoSQL`

EDUCATION

September 2017 - April 2022 | Candidate, Honors Bachelor of Science *University of Toronto Scarborough*. Major in Neuroscience, Major in Computer Science 4th year.