

# Akathian SANTHAKUMAR

## 4th-year Computer Science and Neuroscience Student

akathian.com

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Ambitious and self-directed 4th-year student **double majoring in Computer Science and Neuroscience**. Strive in highly collaborative work environments and enjoy solving challenging problems. Comfortable using Linux/Ubuntu and MacOS as a daily driver. Possess excellent work ethics, allowing for efficient work flow and exceptional attention to detail. Hope to one day make breakthroughs in the artificial intelligence field, applying advanced knowledge in neuroscience and computer science topics.

### KEY COMPETENCIES

Programming	Python, Node.js/JavaScript, Java, TypeScript, C, Shell Scripting, Haskell
Artificial Intelligence Technologies	Machine Learning (Tensorflow, Keras, AWS SageMaker), Computer Vision (OpenCV, Darkflow, Mediapipe)
Developing Experience	Back-End (Node.js, Flask), Front-End (Angular, React.js), IoT (Raspberry Pi Edge Computing), QA (JUnit, Mocha/Chai, Python unittest, Jenkins), UI/UX Design (Angular, AWS Sumerian)
Developer Tools	Git (GitFlow), AWS (SageMaker, Rekognition, Comprehend, Lex, Elastic Beanstalk, SQS, SNS, EC2, CodePipeline, S3, Sumerian, CloudWatch, RDS), Google Firebase (Hosting, Auth, Real-time Database)
Database	MySQL (MySQLWorkbench), NoSQL (Firebase Realtime Database), SQLite (DB Browser), Excel
Others	HTML, SCSS, CSS, JQuery, Agile Methodologies (Jira), Research & Development

### EXPERIENCE

January 2019 Present	<b>Web Developer &amp; Tutor, THAYAHAN ARTS SCHOOL, Scarborough, ON</b> Build and maintain the business' website and teach subjects such as Programming, Math and French to students. <a href="https://thayahanartsschool.ca/">https://thayahanartsschool.ca/</a> <ul style="list-style-type: none"><li>Created an interactive and responsive business website using Angular and Google Firebase</li><li>Teach multiple students fundamentals of programming, mathematics and french while keeping them engaged and interested in the lessons</li></ul> <div><span>Python</span> <span>French</span> <span>Math</span> <span>Angular CLI</span> <span>Google Firebase</span> <span>HTML</span> <span>CSS</span> <span>TypeScript</span> <span>Git</span></div>
September 2019 April 2020	<b>Innovation Engineer (R&amp;D Application Developer), CIBC, Toronto, ON</b> 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. <ul style="list-style-type: none"><li>Developped a queueing system using Node.js to determine event processing order</li><li>Wrote extensive mocha/chai unit tests for the server's Node.js backend</li><li>Built a 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.</li><li>Performed research on finding technologies for solutioning the assistant's learning model, UI controls, microphone, and camera set-ups</li></ul> <div><span>Node.js</span> <span>Python (AI &amp; Edge Computing)</span> <span>AWS</span> <span>Agile</span> <span>Git (GitFlow)</span> <span>MySQL</span> <span>Mocha/Chai</span> <span>React.js</span> <span>IoT</span> <span>Jira</span></div>

### PROJECTS

#### FREELANCE WEB DEVELOPER

2020

<https://ovvisuals.com/> (Complete), <https://strongertogether-blog.web.app/> (In progress)

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, user login and other functionalities using multiple APIs.
- Creating a blog and forum website for a mental health awareness non-profit business, allowing for user anonymity and the ability to get algorithmically paired with another user (buddy system) for support.
- Wrote reusable Angular components to keep the code for the websites clean and organized

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 4<sup>th</sup> year. GPA : 3.13 out of 4.0