Scott Ti
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Education

- **Bellevue College** — Bellevue, Washington
  Bachelor of Science - Computer Science GPA: 3.6/4.0 — *September 2018 - June 2022*
  Upper-Division Courses: *Deep Learning, Machine Learning, Algorithm Analysis, Software Engineering, Operating Systems, Cloud Computing*

Skills

- **Languages**: Java, Python, C#, C++, Javascript/Typescript, Rust, C, SQL
- **Frameworks**: Spring Boot, Express, React, Scikit, TensorFlow, Keras
- **Tools**: Git, MongoDB, MySQL, PostgreSQL, Jenkins, Redux, VIM, JUnit, Thymeleaf
- **Platforms**: Linux, AWS, Firebase, Google Cloud

Technical Projects

- **Deal! Price Comparison Web Application (Plug-in Architecture, Web Scraping, User Authentication, Full Stack Web Development, Scrum Workflow)**: Tech: Java, HTML/CSS, Javascript, Spring Boot, Thymeleaf, Bootstrap, AWS, DynamoDB, Cognito, IAM. https://github.com/scottti312/deal-webapp
  - Led a 4 person team to create a full-stack price comparison web application using Java, AWS, and web scraping techniques alongside agile methodology.
  - Assigned user stories based on each member's interest and skill set to ensure a well-rounded approach. Created clear deadlines and objectives for each sprint.
  - Worked extensively with AWS' API to handle database operations, user authentication, and scalability, resulting in a reliable and efficient platform.
  - Built and improved internal vendor plug-ins to provide product data from retailers 75% faster.
- **Sticker Avenue: An E-commerce Storefront (Front-End Web Development, Firebase Web Application, Three.js Modelling)**: Tech: Typescript, React, Redux, Firebase, Three.js. https://sticker-avenue.web.app
  - Personal solo project where everything is designed from scratch. Planning was done in Figma with certain assets made in Gimp and Blender.
  - Used Firebase to handle user authentication and database to save and merge the state of user's cart when signed in. Firebase is also used to deploy and host the website.
  - Implemented responsive design in all facets of the website for mobile compatibility for every visible component. Received positive feedback from users for functionality and design.
  - Used React Three Fiber to implement an interactive 3D model of a sticker in the homepage.
- **License Plate Recognition Ticket Processing System (Image Processing, Computer Vision, Database, Windows Service)**: Tech: C#, AWS, S3, Rekognition, Lambda, IAM, SQS, SNS, CloudWatch.
  - Developed a license plate recognition ticket processing system that automates ticketing for traffic violations using captured images of license plates.
  - Worked with Rekognition to read licence plate images. Location, plate and incident data stored in S3 bucket and processed in SQS and Lambda functions.
  - Tested against 10 license plates from different states with unique edge cases such as icons and plate designs, achieving 100% accuracy and ensuring reliable performance for the client.
  - Notifies users by email or text with relevant ticket information using SNS service, reducing manual labor and streamlining ticket processing.
- **Deep Neural Network With Backpropagation From Scratch (Image Processing, Optimization)**: Tech: Jupyter Notebook (Python), Pandas, Numpy. https://github.com/scottti312/backpropagation
  - Designed and implemented a Deep Neural Network with the Backpropagation algorithm from scratch, without any ready-made ML libraries such as Tensorflow or Pytorch.
  - Produced high performing code with ReLU activation and applying optimal hyperparameters. Topology includes 3 layers and 1186 total neurons,
  - Trained network with 60000 labeled data points and tested against 10000 points.
  - Consistently achieve at least 90% accuracy in extensive testing with substantial datasets.