Len G Huang

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Education

Carnegie Mellon University   **August 2019 – May 2023**

Bachelor of Science in Computer Science • Minor in Economics • **GPA: 3.33**
Relevant Coursework: Great Theoretical Ideas of CS (Algorithms), Logical Foundations of Cyber-Physical Systems,
    Principles of Functional Programming, Principles of Imperative Computation (Data Structures in C), Calculus in 3D,
    Matrices & Linear Transformations, Mathematical Foundations for Computer Science (Proofs)

Experience

Capital One Financial Corporation • *Software Engineering Intern*   **Remote • June 2020 – August 2020**
- Delivered a MERN platform from scratch in 7 weeks to reach over 300 of ESM's associates and execs highlighting D&I content
- Architected serverless infrastructure for internal use with AWS S3, Lambda, ALB, Route53 and configured SSO in a JenkinsCI pipeline
- Designed responsive React app by leveraging Invision wireframes, enhanced flagship UI library with custom spacing components
- Coordinated in a team of 3 developers to translate business requirements using an Agile / Scrum workflow and Jira
- Componentized Terraform code by dynamically generating LSI's in AWS DynamoDB to run location queries for Hackathon API
- Mentored groups of 2-3 College Success Foundation students in coding an AI Twitter chat bot during C1 Coders program

CMU School of Computer Science • *Teaching Assistant* • *15-150 Functional Programming*   **Remote • May 2020 – Present**
- Teach mathematical formalizations of code, parallelized data structures, and computation as evaluation with SMLNJ
- Develop course materials (homework, hands-on labs, study guides) and grade assignments for 15-150 (class after data structures)
- Adapt to virtual education by engaging 15+ students with consistent communication in up to 20hrs of weekly labs and office hours

CMU Marketing & Communications • *Tartan Ambassador*   **Remote • September 2020 – Present**
- Lead campus tours, engage prospective students, and speak in panels with 40+ attendees to represent the CMU brand (8hrs weekly)

Projects

MLforALL: Machine Learning for All • *Co-founder* • *UEA I-Fund Startup Competition 4th Place*   **May 2020 – Present**
- (linktr.ee/mlforall) Define product vision and grow platform simplifying ML by creating business plan, pitch deck, advertisement
- Unify full-stack app of 7.2k+ lines of ReactJS, Firestore, GCP Storage, and Python code by hosting FlaskAPI with GCP Run / Docker
- Generalize scikit-learn methods to abstract away using classification algorithms: LogReg, GNB, KNN, LDA, SVM, and CLF
- Devised user-driven slider interface for making and testing models in a multi-page app with Redux, Firestore, Firebase OAuth
- Implement custom CLI with bash and code quality scans to ensure efficient deployments, shifting existing process to CircleCI
- Direct 5 developers, 1 designer, and 1 analyst in weekly meetings, optimize workflow by devising condensed Kanban and Asana

PicTex: Convert Images to LaTeX • *Global Summer PyTorch Hackathon Submission*   **August 2020**
- Developed SwiftUI app connected to AWS Amplify infrastructure enabling users to scan full pages of math and convert to LaTeX
- Laid out groundwork for a Convolutional Neural Net with PyTorch and interfaced with custom dataset by creating data loaders
- Combine 85% accuracy handwriting classifier and object detection algorithm with OpenCV to find symbols and predict their class
- Deployed an ONNX version of PyTorch model in Lambda / API Gateway to interact with S3 and deliver content with Cloudfront OAI

CMU SCS Image Share • *School of Computer Science Advising*   **March 2020**
- Streamlined advisor's process of emailing for 218 SCS students for quarantine snapshots by centralizing sharing in image gallery
- Published a department approved React/Firebase SPA in 4 days, allowing students to share real-time updates across devices

Sentiment Analysis and Star Ratings with Yelp • *Honors Advanced Research Class*   **March 2019 – June 2019**
- Tested accuracy of TextBlob's NLP sentiment analyzer by comparing predictions of 6+ million Yelp reviews with their star ratings
- Presented research to judges in 3 different science fairs (both state-wide and region-wide) and won computer science awards

Activities

NCAA Division III • *Student Athlete* • *Carnegie Mellon Varsity Men's Track & Field*   **August 2019 – Present**
- Compete in shot put, discus, and hammer events and selected as 25/44 to represent CMU T&F at UAA Conference championships
- Balance 15+ hours per week in offseason, 20+ hours per week in-season of training, travel, and meets with a full-time course load

Joyful Noise Acapella Group • *Bass Singer*   **September 2019 – Present**
- Perform in 11+ yearly events for unanimously deciding acapella group and contribute to leadership discussions regarding new members

Awards & Skills

Awards: Capital One Software Engineering Summiteer, UEA I-Fund Pitch Competition 4th Place Startup, YMCA Conference on National Affairs Delegate, National AP Scholar, Jersey Shore Science Fair 2nd Place Upper CS, Delaware Valley Science Fair 3rd Place Category Award, New Balance Nationals Outdoor Track and Field Emerging Elite 3rd Place Discus, Holmdel High School Record for Discus

Skills: Python, JavaScript, SMLNJ, C, HTML/CSS, Terraform, Java, Swift, Bash, Amazon Web Services (Lambda, DynamoDB, S3, ALB, Route53, Cloudfront, Amplify), Google Cloud Platform (Storage, Run, OAuth, Firestore, Functions), React, Redux, Node, Express, Gatsby, JenkinsCI, CircleCI, Swift, SwiftUI, PyTorch, scikit-Learn, Pandas, Jupyter, Flask, Matplotlib, Bokeh, Seaborn, Textblob