ASHISH BASETTY

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EDUCATION

University of California, Los Angeles (UCLA) **Los Angeles, CA**

Bachelor of Science in Computer Engineering *Expected June 2025*

- *Cumulative GPA:* 4.00 / 4.00, Recipient of Ching Chiao Tu Scholarship for academic year 2021-22
- *Relevant coursework includes:* Computer Organization, Software Development, Data Structures, Data Science, Statistics, Machine Learning, Digital Design, Algorithms and Complexity, Internet of Things, Systems and Signals, Verilog

Mission San Jose High School **Fremont, CA**

SKILLS

- Programming in Python, Java, C, OpenMP, and C++ through coursework and projects
- Scripting with Shell, Lisp, and Python, in-depth understanding of Git and Linux / Unix systems
- Developing web apps with React.js, MongoDB, server side Node.js, JavaScript, HTML, CSS, Material-UI, and Firebase
- Training and refining data science models and neural networks in Jupyter Notebooks with Scikit-learn, Pandas, and PyTorch
- Working with various modeling software including MATLAB, PyMol, Avogadro, and Autodock Tools

PROFESSIONAL EXPERIENCE

Paradign Energy **Los Angeles, CA**

Research Intern *July 2022 - September 2022*

- Managed and ran lab experiments at an early-stage energy materials startup and optimized synthesis conditions
- Reduced polymer dissolution rate and refined membrane production process using experimental results and NMR analysis

Tolbert Group **Los Angeles, CA**

Lab Assistant *March 2022 - September 2022*

- Synthesized novel fast-charging electrode materials through both templated and non-templated chemical methods
- Analyzed electrode materials with X-Ray diffraction, electron microscopy, and galvanostatic cycling

PROJECTS

Sign Language Translator *August 2023*

- Constructed a real-time sign language alphabetical translator using YOLOv8 and Open-CV computer vision models
- Optimized training and detection using GPU acceleration and achieved minimal validation cross-entropy loss of 0.201

BruinConnect *June 2023*

- Coded a college event finder with a MERN stack, with both Google Maps integration and No-SQL cloud database
- Built web app features including friends, search filters, password encryption, and independent web server
- Planned UI with Figma and iterated based on user experience feedback, and performed product pitch

Hotel Classifier *June 2023*

- Classified guest cancellation likelihood through logistic, decision tree, and single-layer perceptron models
- Processed and cleaned provided guest data, as well as augmented data features and extrapolated missing data values

Pomododo *April 2023*

- Created a React-based study tracking site with individual user customizability
- Connected firebase backend and added features, including framework for a social leaderboard and Google Authentication

Genre Finder *December 2022*

- Wrote a musical genre-detection algorithm utilizing Fourier analysis and cluster-based prediction
- Predicted new music genre from a subset of genres at an approximately 70% accuracy rate on new testing data
- Trained a neural network using PyTorch on music frequency spectrum data to identify music genre

EXTRACURRICULARS

Exploretech.la **Los Angeles, CA**

Student Instructor *September 2022 - Present*

- Developed interactive workshops to expose Los Angeles high school students to new topics such as cryptography and NLP
- Mentored local students through one-on-one informational sessions and helped them plan their post-graduation goals

MentorSEAS **Los Angeles, CA**

Tech Committee Member *December 2022 - March 2022*

- Served as a board intern at engineering mentorship program at UCLA and helped plan social events for undergraduates
- Maintained club website and algorithm for matching incoming college freshmen with engineering mentors