Bowen Yang
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SUMMARY

- Motivated graduate software engineer with a solid foundation in computer science and machine learning, fueled by a passion for tackling challenging problems. I specialize in building secure, scalable web applications and have hands-on experience in developing mobile apps. Proficient in Python, Java, JavaScript, as well as frameworks like Vue.js, Node.js, and Flutter. I thrive in collaborative environments, working effectively with both technical teams and non-technical stakeholders to create impactful solutions. With a commitment to continuous learning, I'm excited to bring my skills to real-world challenges and make a meaningful difference.

EDUCATION

- **University College London** London, UK
  MSc Artificial Intelligence for Biomedicine and Healthcare *Sep 2022 – Sep 2024*
    - **Relevant Courses**: Statistical Natural Language Processing (86%), Deep Representations and Learning (73%)
- **King's College London** London, UK
  BSc Computer Science, First Class Honours *Sep 2019 – Jun 2022*
    - **Relevant Courses**: Optimization Methods (83%), Operating Systems and Concurrency (79%), Software Engineering Group Project (75%), Data Structures (95%)
    - **Awards**: King's Experience Research Award, King's Undergraduate Research Fellowships

PROGRAMMING SKILLS

- **Languages**: Python, Javascript, Scala, Java, C++

- **Technologies**: Git, Node.js, Flutter, SQL, MongoDB, Linux, Agile, LLM

EXPERIENCE

- **King's College London, Canterbury Christ Church University** London, UK
  Software Engineer Intern *Jun 2021 – Sep 2021*
    - **Full-Stack Solution**: Partnered with with medical professionals to define user requirements. Designed and developed a secure web application leveraging Node.js, NestJS and MongoDB for post-stroke patients and neurological experts, realizing the prototype proposed in this publication.
    - **Real-Time Features**: Integrated chat and video meeting functionalities; Enabled therapy resources uploads from the doctors side and release to the patients; Captured and stored the patients movement data through webcam and wearable sensors during therapy exercise practices.
    - **Data Analysis and Visualization**: Visualized the patient's movement data gathered during therapy exercises to identify trends and monitor for any abnormality, reducing manual data review time by 20%.
    - **Agile Collaboration**: Collaborated in an Agile research team throughout the development and adapted to changing demands, resolving 15+ technical issues through unit and integration testing and ensuring timely delivery with weekly progress updates.

- **Institute of Psychiatry, Psychology and Neuroscience, King's College London** London, UK
  Software Engineer Intern *Jan 2021 – Apr 2021*
    - **Cross-Platform Application**: Developed a cross-platform mobile application in Flutter and Node.js and a data retrieval page with Vue.js, for the intervention and treatment of people suffering from depression, increasing patient engagement by 15-20% through interactive and data-driven features.
    - **Categorization System**: Created a categorization system with 7 distinct categories for users to select their therapy focus, personalizing their practice questions, enabling customized mental health support.
    - **Team Leader**: Led an 8-person Agile team, managed tasks using a Kanban Board to deliver features on time, achieving 80% functionality completion ahead of the plan.
    - **Quantitative Tools**: Incorporated analytics and real-time feedback features for patients, enhancing data tracking capabilities with examples such as monitoring task completion rates and accuracy, visualizing progress via dashboards, and enabling automated alerts to notify irregularities or remind for daily practice.

PROJECTS

- **Latent Factor Analysis using Extended GFA**: Applied an extended version of Group Factor Analysis in Python, building on the previous research, to identify latent factors from large-scale incomplete rs-fMRI and non-imaging data, uncovering hidden relationships across additional data modalities with improved computational speed.

- **Multi-Task Learning for Emotion Detection**: Developed a BERT-based framework in Python and PyTorch for multi-class, multi-label, and regression tasks, leveraging shared embeddings. Trained on multiple datasets using Google Colab, achieving notable gains for low-resource tasks.