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IDE-BC-P2

CodeX

# AI PROCTORING TOOL

Team CodeX

Dev Parapalli

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Vaibhav Kothe

# OVERVIEW

We are CodeX.

We enjoy applying AI and ML to real world issues.

We are developing an AI Proctor, capable of replacing the need of a human proctor.



# THE PROBLEM

Taking exams during the COVID era exposed us to proctored take-at-home exams. Cost, Time and Manpower involved to train, manage and maintain a team of proctors available for any digital examination is a major pain point.

Educational Institutions, Corporate, Hackathons, Competitive Examinations are our target customer.

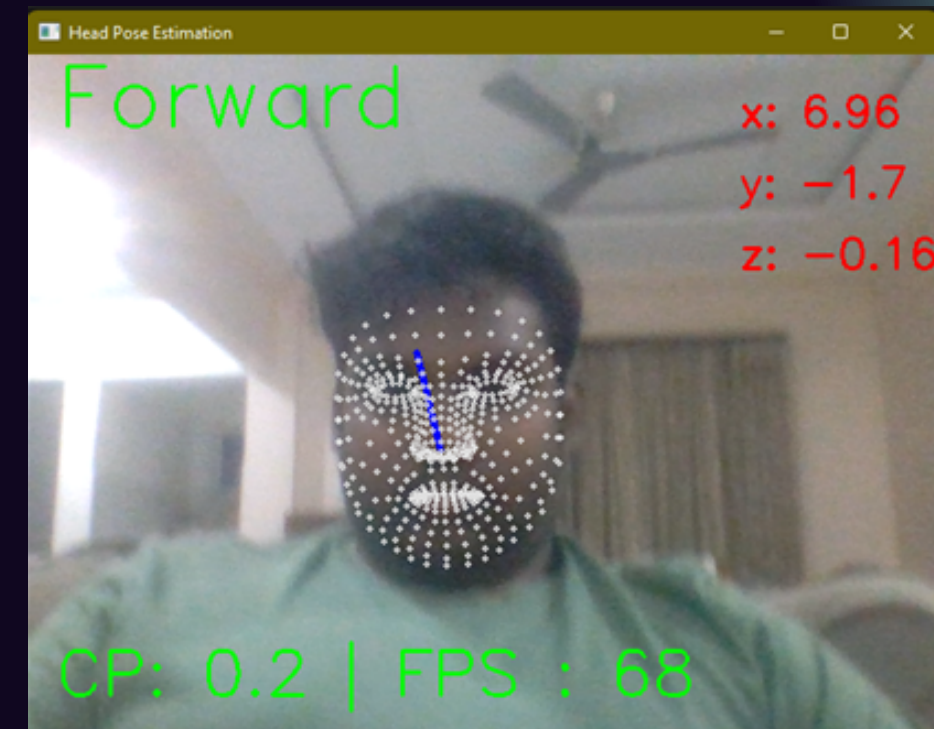
Many institutions pay for software that is in some cases incompatible with certain software, causing panic amongst takers. Another pain point is the lack of good service towards users\*.



# THE SOLUTION

We utilize AI and ML to estimate pose, posture, and gaze of the testee. All this data is then fed into next-gen AI models to determine the authenticity of any answers, or output given.

Even with a simple built-in webcam we can track the user's profile, not requiring multiple camera setups or the like.



Our proposed modus operandi reduces the manpower required to conduct a proctored test. Recordings are saved and available for later review. Recordings are tagged with timestamps in case of manual review.

# INNOVATION



## USP :

Complete Automation of Test Taking including,

ID Verification  
Identity Verification

Implementation of AI and ML reduces bias, improves privacy of the testee and increases flexibility in terms of timing etc.

Solves the issue of cost, management and training of proctors.

Test Platform is made accessible to people with disability as well.

# MARKET & OPPORTUNITY

## TAM

(aka the 100%)

Total Addressable Market includes all educational, corporate institutions, in addition to, competitive examinations and e-learning platforms.

## SAM

(aka. the target)

Serviceable Available Market includes most upcoming institutions, many of which are unable to justify spending the full cost of a platform like Mettl.

The online learning community is projected to be worth more than **USD\$ 370 billion by 2026\***.

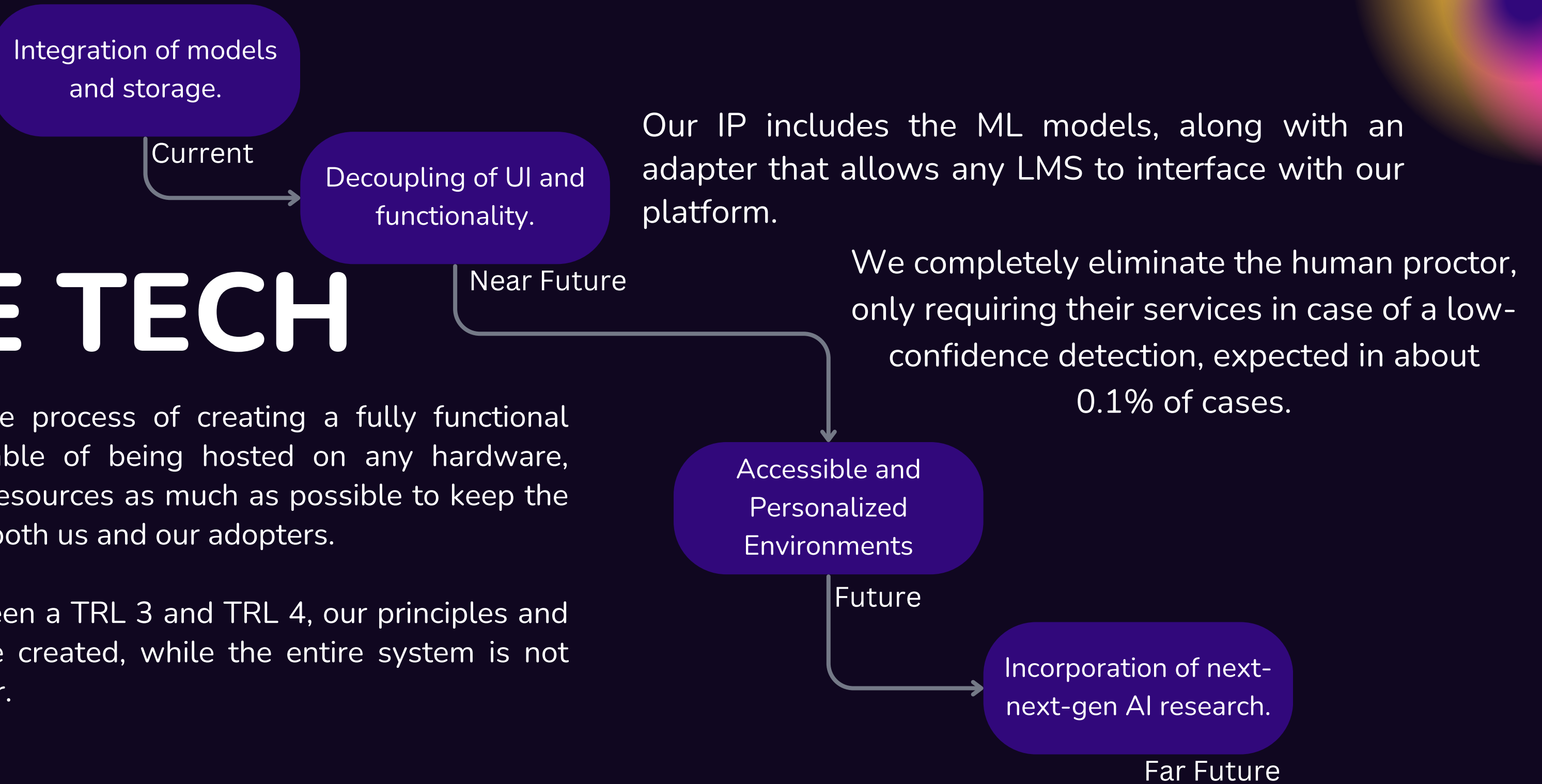
\*<https://www.devlinpeck.com/content/online-learning-statistics>

# THE TECH

We are in the process of creating a fully functional platform capable of being hosted on any hardware, utilizing free resources as much as possible to keep the costs low for both us and our adopters.

We fall between a TRL 3 and TRL 4, our principles and AI models are created, while the entire system is not glued together.

Page 06







# COMPETITIVE LANDSCAPE

METTL still requires humans to check and process the onboarding, essentially requiring a human to babysit that process.

We want that process to essentially be as seamless as possible, focusing on being as easy to use as possible.

Alternatively, many proctoring solutions simply setup



<b>PROBLEM</b> <ul style="list-style-type: none"> <li>Time, Cost required</li> <li>Requirement of Human</li> <li>Bias</li> </ul>	<b>SOLUTION</b> <ul style="list-style-type: none"> <li>Utilize pre-trained AI models</li> <li>AI models can perform verification and validation</li> <li>AI doesn't have bias.</li> </ul>	<b>UNIQUE VALUE PROPOSITION</b> <p>Huge cost reductions, along with highly detailed reports, automated management of tests.</p>	<b>UNFAIR ADVANTAGE</b> <ul style="list-style-type: none"> <li>AI algorithms to detect unfair means used.</li> </ul>	<b>CUSTOMER SEGMENTS</b> <ul style="list-style-type: none"> <li>Educational Institutions</li> <li>Corporate Hiring</li> <li>Competitive Exams</li> </ul>
<b>EXISTING ALTERNATIVES</b> <ul style="list-style-type: none"> <li>Lower standards of proctoring</li> <li>Increase number of students per proctor</li> <li>Utilize Team conference software.</li> </ul>	<b>KEY METRICS</b> <ul style="list-style-type: none"> <li>Market is trending towards e-learning,</li> <li>Online learning has grown 900% since inception (Oxford College)</li> </ul>	<b>HIGH LEVEL CONCEPT</b> <p>Self Driving Cars for Proctoring</p>	<b>CHANNELS</b> <ul style="list-style-type: none"> <li>Social Media (LinkedIn)</li> <li>Advertisements, targeted towards Teaching staff</li> <li>Word of Mouth</li> <li>SEO</li> </ul>	<b>EARLY ADOPTERS</b> <ul style="list-style-type: none"> <li>Looking for Low-Cost Solutions</li> <li>Just entered e-learning or hiring</li> </ul>
<b>COST STRUCTURE</b> <p>Fixed Costs: Office Space, Developers,</p> <p>Variable Costs: Server Storage, Capacity, API Access (UIDAI, PAN, EPIC),</p>			<b>REVENUE STREAMS</b> <p>Subscription Service with limits for number of test-givers. Each tier of subscription will allow more test-givers, along with longer data retention periods, and increased level of customization</p> <p>Highest tier will have a dedicated server, and account manager, with a SLA of 5-nines.</p>	

# BUSINESS MODEL

- Subscription Fees
  - Tiered plans > features, number of assessments  
SLA
  - Annual or Monthly Contracts
- Per-assessment pricing
  - Credits system, a certain number of exams can be taken
  - Ideal for infrequent needs
- Extra Services
  - Integration with LMS
  - Preparation of Questionnaires

Month 1-3: Product Development

No direct revenue

Month 4-6: Freemium Model

Basic Features for Free, Initial Revenue from Subscriptions

Month 7-9: Advanced Monetization

Marketing + Paid Plans introduction

Month 10-12: Partnerships and Collaborations

Implementation of Revenue Sharing models.

Year 2: Enterprize Solutions

Introduction of custom plans, tailored solutions.

Year 3 onwards: Innovation and Market Expansion

# MEET THE TEAM



Dev  
Parapalli

Vaibhav is an AI and ML connoisseur, he has worked on multiple projects, some of which are deployed in industries. Acting as the President.

Dev is an all-rounder, taking on the role of a CTO for this project.

Both of us are from GCOE, Nagpur, having significant experience with open-source, deployment and testing



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# THANK YOU

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